

SEQUENCE LISTING

SEQ ID	NMB	Sequence
1	0010	MAFLKLTQNVQGKTVLIRADMNVPFKDGKISDDTRIRASLASIKYCVDNASVIMVTHLGRPTEGEFHPEDDVAP VAHLGSLGKDVKVLNDWRENKPALNAGDVVMLQNVRIKNGEKKNDLELGKAYASLCDVFNDAFGTAHRAQAST EAVAQAAPVACAGVLMAGELDAGLKALKQPARPMVAIVAGSKVSTKLTIIESLADKVDQLIVGGGIANTFLLAEGK AIGKSLAEDHLVEESKKIMAKMAAGGSVPLPTDVVAKAFAADAEAVVKDIAADAEAVVKDIADVADEMILDIG PKSAAALADLLKAAGTVVWNGPVGVEFDQFAGGKTALAEALAQSKAFSIAGGGDTLAAIAKFGVTEQIGYISTGG GAFLEFLEGKELPAVALEKRG
2	0018	MNTLQKGFTLIELMIVIAIVGILAAVALPAYQDYTARAQVSEAILLAEGQKSATVEYYLNGHEWPGNNTSAGVATS SEIKGKYVKSVEVKNGVVTQAOMASSNVNNEIKGKLSLWAKRQNGSVKWFQGPVTRDKAKAANDDVTAANAANGK KIDTKHLPSTCRDASDAS
3	0030	MTRKILVTSALPYANGSIHLGHMVEHIQTDVWVRFQKLRGHACHYCCADDTHTGTPVMLAAQKQGIAPEDMIAKVRE EHLADFTGFFIGYDNYSTHSPENKQFSQDIYRALKANGKIESRVIEQLFDEPKQMFDPFRVKGECPCCHAQDQY GDNCEVCGTTSPTTELINPYSAVSGTKPELRESEHFFKLGECADFLKAWTSGNPNHDKGPHLOAEALNKMKEWL EGEFLLSDWDISRDAPYFGFEIPDAPGKYFYVWLDAPVGYMASFKNLCDRIGVDFDEYFKADSQTEMYHFIGKDI LYFHALFWPAMLFHSGHRAPICTWANGELTVDGOKMSKSRGTFITAKSYLEOGLNPEWMRYIIAALNSKIEDIDL NLQDFISRVNSDLVGKYVNIARASGFIKRFEGRLKDVADSETMAKLLDSEALAEQYEGREYAKALRDMALAD IVNEYVDANKPWELAKQEGQDERLHEVCSELINAFMTLTAYLAPVLPQTAANAALFLNLEAITWANTRDTECKHAI NKYEHLNQRVEQKQVDDLIANKQSIAAAAAPAAEEGKYKVAEQASFDDFMKIDMRVAKVLNCEAVEGSTKLLKF DLDFGFEKRIIFSGIAASYPNPAELNGRMVIAVANFAPRKMAKFGVSEGMILSAATADGKLKLLDVTGAQPGDKV G
4	0038	MPQNTLNIIVLAAGKTRMYSKMPKVLHRIKGGKPMVGRVIDTAAALNPQNICVVIHGKEQVLDTVKRDVVWEQT EQLGTGHAVKTALPHLSAEGRTLVLVYGDVPLIDVETLETLLAAGNEVGLLTDVPNDPTGLGRIIRDSNGSVTAIV EEKDADAVQKAVKEINTGILVLPNAKLENWLNLSNNNAQGEYLLTDLIAKAVADGKIVHPVQVRASHLAAGVNNK LQLETERIFQTEQAQELLKAGVTLRDPARFDLRGLKHGQDVVIDVNCIFEGDIELGNVEIGANCVIKNAKIGA NSKIAPFHSLESCVGENNRIGPYARLRPQARLADDVHVGNFVEIKNAAIGKGTKANHLTYIGDAEVGCKTNFGAG TIIANYDGVHKKTVIGDEVRIGSNVCVLVAPVTLGNKVTTGAGSTITRNVEDNKLALARARQTVIEGWRPEKDKQ
5	0045	MFSFRRKKKQETPALEEAQIQETAAKAESELAQIVENIKEDAESLAESVKGQVESAVETVSGAVEQVKETVAEML SEAEAAAEKAAEQVEAAKEAVAETVGEAVGQVEAVATTEEHKLGWAARLKQGLTKSRDKMAKSLAGVFGGGQIDE DLYEELETVLITSDMGMEATEYLMKDVRDRVSLKGLKDGNELRGALKEALYDLIKPLEKPLVLPETKEPFVIMLAG INGAGKTTSIGKLAKYFQAQGSVLLAAGDTFRAAREQLQAWGERNNVTVISQTTGDSAAVCFDAVQAAKARGID IVLADTAGRLPTQLHLMEEIKKVRVLQKAMPDAPHEIIVVLDANIGQAVNQVAFDDALGLTGLIVTKLDGTAK GGILAAALASDRPVPVRYIGVGEIGIDDLRPFDAFAVDALLD
6	0051	MNTDNLHDIIDEMVQVYSQKKQSRSETPAEIGAHHFPLLDRLCETAEQNASDILISKGFPPSLKINSALTPOPOK ALTGEETAIAAASTMNAEQSEIFRRDGEINYSVQSRSGTRYRANAYHSQGSAGLVLRRIINHVIPOMQELGLPEKLE DLAVAPRGLLIIVGPTGSGKSTTMATMLEHRNKLTPSHIVTIEDPIEFYKPRRCIFTQREIGVDTINWQTAVQNA MRQSPDVVICIGEVRSRESMEYAMQLAQTGHLICIFTLHANTAPQSLERILNFYKPEQHNQILIDIALNLGTIICQL ALKQDKTGRVAVDLLINTPAIQDFILKGLDMNISKIMETAKTDMQMDQNLFEYRHGIIISYEALRQSVSANN LRLHIQLHKEGKTPELLYDRVNGNLIS
7	0052	MQITDLLAFGAKNKASDLHLSSGISPMIRVHGDMRRINLPMSAAEEVGNMVTSMNDHQKRIYQONLEVDFSLEP NVARFRVNAFNIGRGAAPVFTIPSTVLSLEELKAPSIQKIAESPRGMVLVTGPTGSGKSTTLAAMINYINETQP AHILTIEDPIEFVHQSKSLINQRELHQHTLSFANALRSALREDPDVILVGEMRDPETIGLALTAETGHLVFGTL HTTGAAKTVDRIVDFPAGEKEMVRSMLESSTAVISQNLKTHDGNRGRVASHEILIANPAVRNLIRENKITQINS VLQTGQASGMQMDQSLQSLVRQGLIAPEVARRAQNSESMSF
8	0068	MQNNNEFKIGNRSVGNHEPLICEIGINHEGSLKTAFAEMVDAAYNAGAEVVKQTHIVEDEMSDEAKQVPIGNAD VSIYEIMERCALNEEDEIKLKEYVESKGMIFISTPFSRAAALRLQMDIPAYKIGSGECNNYPLIKLVASFGKPII LSTGMNSIESIKSVEIIREAGVPYALLHCTNIYPTYEDVRLGGMNDLSEAFPDAIIGLSDHTLDNYACLGAVAL GGSILERHFTDRMDRPGPDIVCSMNPDTEKELKQGAHALKLARGGKDTIIAGEKPTKDFAFASVVADKIDKKGEL LSGDNLVWKRPGNGDFSVNEYETLFGKVAACNIRKAQIKKTDIE
9	0089	MNQTSRDLTRISHNTKIVATLGPSSNNVELLEDMIRVGGNLNVVRFNFHSGTPEFHQENALIVREAAKRAQOEIAII ADLQGPKIRVGKIAAGGIELNKGETLVLDAALEGEGETREAVGLDYRDLDPDDVAAGDVLWLDGLLTLTVESVEGSR IITRVENSHVLKSNKGINKRGGLSAGALTEKDFDLKTAIAIGCDYLAIISFVKSADLHIAKRAKVEEEMKGSTAV RPLGVSKIERVEAIENLDEIILAGDGMVARGDLAVEVGHAAVPALQKRMIRARELRRESITATQMMEISMITNPV PTRAEVSVDVANVLDTDAVMCSAETAVGAYPFETVSQMAIICAAEEQDSLNGVAEQVEYPEAVSTNLAVAGGA VSVARAVHAKAIVALTESGSTAFETSRHNITLPIFALTPSVSAQRRMAMRYRVRPLILATSTDHDTALNEVETMLV EHNILHSGDQYIITSGSQMRESGSGTNTLEVLRVK
10	0109	MLKCGTFFITRHI PRGCRREFQPNQARQTEIYQIRGTVMQRRIITLLCAAGMAFSTQTLAANLEVRPNAPERYTVK

		QGDPLWGISGKYLSPWQWGRLDANRDQIHNPDLIYPDQVLVLRHVDGEPRLGLEQTDGIPVVKMSPDKEVSGYG IPADIVNFYRIFMRHPQIVSRKETAAPRLLSGPEGRLTYTKGTRVYTKGLKEPGRYLTYRINKNITDPDTGKFLG QEVAFSGIVRSLDYTDVLEQSRKQAGERPKDNEYHTRTHPLITPLRTPSIQPLVVEITASEIQQGDYLMKMPEDT DRFNMMPHEPSRPVQAKIVSVFEGTRIAGQFQITITDKGEADGLDKGTVLSLYKRKKTMOVDLSNNFKSRDTEVELI STPAEEVGLAMVYRTSEHLSSAIILENISDISVGDTAANPGRDLNIPDQGRSRVKFGFNRE
11	0115	MRSSDILIVDDEIGIRDLLSEILQDEGYSVALAENAEARKLRHQARPAMVLLDIWMPDCGITLLKEWAKNGQLN MPVVMMSGHASIDTAVEATKIGAI DFLEKPI SIQKLLSAVENALKYGAQTETGPVDFKLGNSSAIQEMNREVGAA VKCASPVLLTGEAGSPFETVARYFHKNGTPWVSPARVEYLIDMPMELLQKAEGGVLYVGDIAQYSRNIQAGIAFTV GKAEHRRVRVVASGSRAAGSDGIACEEKLAEELLESVRI PPLRMQHEDIPFLIQGIACNVAESQKIAPASFSEEA LAALTRYDWPNGFDQLQSVVATLLLEADGQEI GAGAVSSLLGQNVPAEGAEDMVGGFNFNLPLRELREEVERRIFE YHIAQEQGNMSQVAQKVGLERLTHLYRKLKQLGIGVSRRAGEKTEE
12	0124	MAKEKERSKPHVNVGTIGHVDHGKTLTAAITLAKKFGGAAYDQIDNAPEEKARGITINTSHVEYETETRH YAHVDCPGHADYVKNMITGAAQMDGAILVCSAADGMPQTREHILLARQVGVPYIIVFMNKCMDVDAELLELVEM EIRDLLSSYDFPGDDCPIVQGSALKALEGDAAYEKEIFELAAALDSYIPTPERAVDKPFLPIEDVFSISGRGTVV TGRVERGIIHVGEIEIVGLKETQKTCTGVEMFRKLLDEGQAGDNVGVLLRGTKREDVERGQVLAKPGTITPHTK FKAEVYVLSKEEGGRHTPFYFANYRPFYFRTTDTVTGAVTLEEGVEMVMPGENVTITVELIAPAMEEGLRFAIREG GRTVGAGVVSSVIA
13	0126	MSKKWYVVQAYSGFENQVRIEERAREEMGDYFGQILVPVEKVVDIRNGRKTISERKSYPGYVLVEMEMTDDSW HLVKSTPRVSGFIGGRANRPTISQREAEIILQQVQTGIEKPKPKVEFEVGOQVRVNEGPFADFGVVEEVNERN KLRSVQIFGRETPVELEFSQVEKIN
14	0128	MAKVSRLKALRSSVEANKLYAIDEAIALVKKAAATAKFDESVDVSFNLGVDPRKSDQVIRGSVVLPGKTGKITRVA VFTQGANAEAAKEAGADIVGFEDLAAEIKAGNLNFDVVIASPDAMRIVGQLGTILGPRGLMPNPKVGTVPNVAEA VKNAKAGQVQYRTDKAGIVHATIGRASFAEADLKENFDALLDAIVKAKPAAKQYLKKAVALSSTMGLGIRVDTSS VNN
15	0130	MSLNIETKKVAVEEISAAIANAQTLVVAEYRGISVSSMTELARANARKEGVYLRVLKNTLARRAVQGSFAELADQM VGPLVYAASEDAVAAKVLHQFAKKDDKIVVKAGSYNGEVMNAAQVAELASIPREELLSKLLFVMQAPVSGFARG LAALAEKKAGEEAA
16	0131	MAITKEDILEAVGSLTVMELNDLVKAFEEKFGVSAAAVAVAGPAGAGAADAEEKTEFDVVLASAGDQKVGVIKVVR AITGLGLKEAKDIVDGAPKTIKEGVSKAEAEIQKQLEAGAKVEIK
17	0132	MCMNYSFTEKKRIRKSFARENVLVFPFLATQIDSYAKFLQLENADFDRKRTDDGLQAAFNISFPIVSHNGYARLEF VHYTLGEPLFDIPECQLRGITYAAPLRARIRLVILDKASKPTVKEVRENEVMGEIPLMTPSGSFVINGTERVIV SQLHRSPGVFFEHDKGTHSSGKLLFSARIIPYRGSWLDFEFDPKDLYFRIDRRRKMPVTILLKALGYNNEQILD IFYDKETFYLLSSNGVQTDLVADRLKGETAKVDILDKENVLVAKGKRITAKNIRDITNAGLTRLDVEPESLLGKAL AADLIDSETGEVLASANDEITEELLAKFDINGVKEITPLYINELDQGAYISNTLRTDETAGRQAARVAIYRMMRPG EPPTEEAVEQLFNRLFFSEDSYDLRSVRGMKFNTRYEQKLSAQONSQWYGRLLNETFAGAADKGGYVLSVEDIVA SIATLVELRNGHGEVDDIDHLGNRRVRSVGELTENQFRSGLARVERAVKERLNOAESNLMPHDLINAKPVSAAIK EFFGSSQLSQFMDQTNPLSEVTHKRRVSALGPGLTRERAGFEVRDVHPTHYGRVCPETPEGNIGLINSLSVYA RTNDYGFLTPYRRVIDGKVTEEIDYLSAIEEGRYVIAQANADLSDGNLIGDLVTCREKGETIMATPDRVQYMDN ATGQVVSVAASLIPFLEHDDANRALMGANMQRAVPCLRPEKPMVGTGIERSVAVDSSATAIVARRGGVVEYVDANR VVI RVHDEATAGEVGVDIYNLVKFRSNQSTNINQRPVAKAGDVLQRGDLVADGASTDFGELALGQNMNTIAFMPW NGYNYEDSILISEKVAADDRYTSIHIEELNVVARDTKLGAEDITRDI PNLSERMQNRLDESIGIVYIGAEVEAGDVL VGKVT PKGETOLTPEEKLLRAIFGEKASDVKDTSLRMTGMSGTVIDVQVFTREGIQRDKRAQSIIDSELKRYRLD LNDQLRIFDNDADFRIERMIVGQKANGGPMKLAGSEITTEYLAGLPSRHDWFDIRLTDEDLAKQLELIKVSLQOK REEADELYEIKKKKLTQGDQLQPGVQKMKVVFIAIKRRLQAGDKMAGRHNKGVSRI LPVEDMPYADGRPVDIV LNPLGVPSRMNIGQILEVHLGWAAGGIGERIDRMLKEQRKAGELREFLNRLYNGSGKKEDLDALDEEIIELASNL RKGASFASPVFDGAKSEIREMLNLAYPSDDPEVEKLGFNDSKTQITLYDGRSGEAFDRKVTVGMHYLKLHLVD EKM HARSTGPYSLVTQOPLGGAQFGGQRFGEVMEVWALEAYGAAYTLQEMLT VKSDVDVNGRTKMYENIVKGEHKID AGMPESFNVLVKEIRSLGLDIDLERY
18	0133	MNLLNLFNPLQTAGMEEFDAIKIGIASPETIRSWSYGEVKKPETINRYTFKPERDGLFCAKIFGPVKDYECLOGK YKRLKFKGVTCEKCGVEVTL SKVRRERMGHI ELAAPVAHIWFLKSLPSRLGMVLDMLTRDIERVLVYFEAFVVTDPG MTPLQRRQLLTEDDYNNKLDYEGDDF DAKMGAEGIRELLRTLN VAGEIEILRQLESTGSDTKIKKIAKRLKVLEA FHRSGMKLEWMIMDVLPVLPDLRLVLPDGGRFATSDLNDLYRRVINRNNRLKRLLELHAPDIIVRNEKRLQEA VDSLLDNGRRGKAMTGANKRPLKSLADMIGKGGFRQNLGKRVDSGRSVITVGPYLRHLHQCGLPKKMALELFK PFI FHKLEKQGLASTVKAACKLVEQEVPEVWDILEEVI REHPIMLNRAPTLHRLGIQAFEPILIEGKAIQLHPLVC AAFNADFDGQMAVHVPLSLEAQMEARTLMLASNNVLS PANGEPIIVPSQDIVLGLYMYTRDRINAKGEGSLFADV KEVHRAYHTKQVELGTKITVRLREWVKNEAGEFEFVNNRYETTVGRALLSEILPKGLPFYEVNKKALKKKEISKLIN ASFRLCGLRDTVIFADHLMYTGFGFAAKGGISIAVDDMEIPKEKAALLAEANA EVKEIEDQYRQGLVTNGERYNKV VDI WGRAGDKIAKAMMDNL SKQKVIDRAGNEVDQESFNSIYMMADSGARGSAQIKQLSGMRGLMAKPDGSIETP ITSNFREGLTVLQYFIATHGARKGLADTALKTANSYGLTRRLVDVTQDLVVVEDDCGTSDFVMKAVVQGGDVIEA

		LRDRILGRVTASDVDPSSGETLVEAGTLLTEKLVDMDQSGVDEVKVRTPITCKTRHGLCAHCYGRDLARGKLVN AGEAVGVIAAQSIGEPGTQLTMRTHIGGAASRAAAASQVEAKSNGTARFSSQMRVYANNKGELVVIIGRSCEVVIH DDIGRERERHKVPYGAILLVQDGMALIKAGOTLATWDPHTRPMITEHAGMVKFENVEEGVTVAQTDDVTGLSTLVV IDGKRSSSSASKLLRPVTKLLDENGVEICIPGTSTPVSMAFPVGAIVTVREGQEI GKGDVLARIPOASSKTRDITG GLPRVAELFEARVPKDAGMLAETGTVSFGKETKGKQRLIVTDVDGVAYETLISKEKQILVHDGQVVRGETIVDG AVDPHDILRLQIEALARYIVQEVYRLQGVKISDKHIEVIRQMLRRVNIADAGETGFTTGEQVERGDVMAAN EKALEEGKEPARYENVLLGITKASLSTDSFISAASFQETTRVLTEAAIMGKQDELRLKENVIVGRIPAGTGLTY HRSRHQQWQVEQEETAETQVTDE
19	0137	MPPRRREVPKRDPVLPDPKFGSVELTKFMNVLMDGKKSVARIVYGALEQIEKKTGKVAIEVFNEAIAANAKPIVEVK SRRVGGANYQVPVEVRPSRRLALAMRWVRDAARKRGEKSMDLRLAGELIDASEGRGALKKKEEVHRMAEANKAFS HFRF
20	0138	MARKTPISLYRNIGISAHIDAGKTTTTERILFYTLGTHKLGEVHDGAATTDYMEQEQERGITITSAAVTSYWSGMA KQFPEHRFNIIDTPGHVDFTEVERSMLVLDGAVMVYCAVGGVQPOSETVWRQANKYQVPRLAFVNKMDRQGANFF RVVEQMKTRLRANPVPIVIVGAEDNFGSVVLLKMKSIWNEVDKGTTFYTDI PAELVETAEWRQNMIEAAAE ASEELMDKYLGGDELTEEEIVGALRQRTLAGEIQPMLCGSAFKNKGVRMLDAVELLPAPTDIPPVQGVNPNTTEE ADSRQASDEEKFSALAFKMLNDKYVQQLTFIRVYSGVVKSGDTVLNSVKGTRERIGRLVQMTAADRTEIEEVRAGD IAAAIGLKDVTTGETLCAESAPIILERMEFPEPVIHIAVEPKTKADQEKMGIALNRLAKEDPSFRVRTDEESQGTI ISGMGELHLEIIVDRMKREFGVEANIGAPQVAYRETIRKAVKAEYKHAKQSGGKGQYGHVVIEMEPMEPGEGYEF IDEIKGGVIPREFIPSVDKGIRDTLPNGIVAGYPVVDVIRLRFVGSYHVDSSQLAFELAASQAFKEGMRQASPAL LEPIMAVEVETPEEYMGDVMDLNRRLRVGLMDDDGIGGKVRVRAEVLAEEMFGYSTDLRSATQGRATYSMEFKKY SEAPAHIAAAVTEARKG
21	0140	MANQKIRIRLKAYDYALIDRSAQEIVETAKRTGAVVKGPIPLPTKIERFNILRSPHVNKTSREQLEIRTHLRLMDI VDWTDKTTDALMKLDLPAGVDVEIKVQ
22	0142	MTLGLVGRKVGMRVDFDEQGVSVPTVLDMSANRVTVQVSKD TDGYTAVQVTFGQKKANRVNKAEGHFAKAGVEA GRGLIEFALTEEKLAELKAGDEITVSMFEVQQLVDVTGTSKKGFSGTIKRHNFGAQTSHGNSRSRHRVPGSIGMA QDPGRVFPGRMAGQYGNKTATVQKLEVVVRDAERQLLLVKGAVPGAVNSDVVVRPSVKVGA
23	0143	MELKVIDAKGVQSGSLSVSDALFAREYNEALVHQLVNAYLANARSGNRAQKTRAEVKHSTKKPWRQKGTGRARSGM TSSPLWRKGGRAFPNKPDENFTQKVNRMKMYRAGMATILSQLTRDERLFAIEALTAETPKTKVFAEQVKNLGLQVL FVTKQLDENVYLASRNLPNVLVLEAQQVDPYSLLRYKKVITTKDAVAQLEEQWV
24	0144	MNQRLTQVILAPIVSEKSNVLAEKRNQMTFKVLANATKPEIKAAVELLFGVQVADVTTVTIKGKVRKFRGRTLGR SDVKKAYVSLAAGQELDLEAAAAADKE
25	0154	MARLREFYKETVVPPELVKQFGYKSVMEVPRIEKITLNMVGVEAVADKKVMEHAVSDLEKIAGQKPVVTVARKSIAG FKIRDNYPVGCKVTLLRRDQMFEFLDRLITIALPRVRDFRGVSGKSFDRGNYNMGVREQIIFPEIEYDKIDALRGL NITITTTAKTDEEAKALLSLFKFPFKG
26	0156	MSMHPIDSDMLTRIRNAQRANKAAVAMPSSKLKCAIAKVLKEGYIEDFAVSSDVKSILEIQLKYYAGRPVIEQIK RVSRPGLRIYKASSEIPSVMMGLGIAIVSTSKGVMTDRKARSQGVGCELLCIVA
27	0157	MSRVAKNPVTPAGVEVKFGAEALVIKNGELSFPLHSDVAIEFNDGKLTFFVANNSSQANAMSGTARALVSNMV KGVSEGFELRLQIGVYRAQAQKILNLSLGFSPHPIVYEMPEGVSVQTPSQTEIVLTGSDKQVVGQVAAEIRAFR APEPYKKGVRVYVGEVVMKEAKKK
28	0159	MAKHEIEERGDLIEKMAVNRVTKVKGGRIMAFSALTTVVGDGDGRIGMGKGSKEVPVAVQKAMDQARRSMIKV PLKNGTIHHEVIGRHGATKVFMPQAKEGSGVKAGGPMRLVFDAMGIHNISAKVHGSTNPYNIVRATLDGLSKLHTP ADIAAKRGLTVEDILGVNHG
29	0168	MQNSTTEFLKPRQIDVNTFSATRAKVSMPFERGFHTLGNALRRILLSSMNGFAPTEVAIAGVLHEYSTVDGIQE DVVDILLNKGIVFKLHGRSQVLVLLKSGSGVVSAGDIELPHDVEILNPGHVICHADNGQIEMEIKEVQGRGYQ SVSGRQVVRDENRQIGAIQLDASFSPISRVSFEVEPARVEQRTDLDKLVLDIETDGSIDPEEAVRSAARILIDQMS IFADLQGTPEVEVEEKAPPIDPVLLRPVDDLELTVRSANCLKAEDIYYIGDLIQRTELELLKTPNLGRKSLNEIKE VLASKGLTLGSKLEAWPPVGLEKP
30	0171	MAKIIVVTSGKGGVGKTTTSASIAATGLALRGYKTAVIDFDVGLRNLDLIMGCERRVVYDLINVIQGEATLNQALIK DKNCENLFILPASQTRDKDALTREGVEKVMQELSGKKMGFEYIICDSPAGIEQGALMALYFADEAIVTNPVSSV RDSRILGILQSKSHKAEQGGSVKEHLITRYSPEVAKGEMLSVQDICDILHIPPGLVIPESQNVLQASNSGEPV IHQDSVAASEAYKDVIAARLLGENREMRFLAEAKKSFFKRLFGG
31	0173	MTLTELRYIVAVAQERHFGRAARRCFVSQPTLSIAIKKLEELAVSLFDRSSNDIITEAGERIVAQARKVLEEAE LIRHLANEEQNELEGAFKLGLIFTVAPYLLPKLIVSLRRTAPKMLMLEENYTHLTESLKRGDVDVAIIVAEFPQE PGIVTEPLYDEFFVIVPKGHSFEELDVA SPRMLGEEQVLLLTGNCMRDQVLLSSCSELAQKRIQGLTNTLQSS INTIRHMVASGLAISVLPATALTENDHMLFSIIPFEGTPPSRVVLA YRRNFVRPKALSAMKAAIMQSLHGSFTI CD
32	0193	MTHMIYPKTYDVIVVGGGHAGTEAALAAARMGAQTLLLSHNIETLGQMSCNPSIGGIGKGLVRELDALGGAMALA

		TDKSGIQFRRLNASKGA AVRATRAQADRI LYKAAI REMLENQENLDL FQOAVEDVTLDGERISGVITAMGVFEKAR AVVLTAGTFLSGKIHIGLENYEGGRAGDPAKSLGGRLRELKLPQGRKLTGTPPRIDGRTIDFSQLTEQPGDTPVP VMSVRGNADMHPROQVSCWITHTNTQTHDIIRSGFDRSPMFTGKIEGVGPYRCPSEDKINRFADKDSHQIFLEPEG LTTHEYYPNGISTSLPFDIQIALVRSMKLENAHILRPGYAI EYDYDPRNLKASLETKTITAGLFFAGQINGTTGY EEAAAQGLLAGANAVQYVRGQDPLLRREQAYLGLVDDLTGKVNEPYRMFTSRAEYRLQLREDNADMRLTEDGY KIGLVSEAQWRMFNEKREAVEREIQRKLTWYTPQKLAEGEQIRVFGQKLSREANLHDLRRPNLDYAALMTLEGA MPSENLSAEVIEQVEIQVYQGYIDRQNEEIDSRRIETLKLDPGIDYGVKGLSAEVQQKLNQHKPETVGOASRI SGVTPAAVALLMVHLKRGFKDAK
33	0196	MKRMLFNATQAEELRVAIVDQONLLDLDIETLGKEQRKGN IYKGIITRIEPSLEACFVDYGTDRHGFLPFKEVSRS YFQDYEGGRARIQDVLKEGMEVIVQVEKDERGNKGAALTFFISLAGRYLVLPNNPRGGVSRRIEGEERQELKAA MAELDIPNGMSIARTAGIGRSAAELEWDLNLYLKQLWQAEI EAGKAHHDPLYLLEMESLLIRAIRDYFRPDIGEIL VDNQEVYDQVAEFMSYVMPGNIGRLKLYEDHTPLFSRFQIEHQIESAFSRSVSLPSSGAIVIDHTEALVSI DVNSA RATRGA DIEDTAFKTNMEAAEEVARQMRRLDLGGLVVIDFIDMENPKHQRDVENVLRDALKKDRARVQMGKLSRFG LLELSRQRLKLPALGESSHVACPRCAGTGVIRGIESTALHVLRI IQEAMKDNTGEVRAQVPVDVATFLLNEKRAEL FAMEERLDVNVVLI PNHLENPHYEINRI RTDDVEEDGEPSYKRVAEPEEDESAPKFGGEKAKAARPEPAVKGVHRH TSPAPTAPEKKTSSWWSFKAWLKRI FGGSETQAAPAAETSEKRSTANRSGSRANRRONPRRSKREGSKVEVREV AGKTAGQEARADKAETRNNGNRRRNERGDRAERANAEIQSRNVQPAATVADAAPSETEVQTGKRRRNGSRSERG QTAPETATVAETTVQTAENTPSEPHTAEDKSGKPKSERNRREDSRDAKERRERNQDRRONGKKRNI PSAAKIE QYLNHDTADKVSAAAHVFGETDANAPITVSIADPVAERDLPTASPAVNGDAPVYDAAEKIRATAAILPEGAT PKAAEQEMPSETATFTAAEQARETAQTGGLVLIETDPAALKAWAAQPEVQAGRGLRRSEQPKPSEVATVPAEEMI QVETRQG
34	0212	MTEQKHEEYGADSIQVLEGLEAVRKRPGMYIGDTQDGSGLHHMVFEVL DNAIDEALAGHCDKITVTI IHADHSVSA DNGRGMPGTGIHPKEGRSAAEVIMTVLHAGGKFDNNSYKISGGLHGVSVVNALSDWVTLTIYRDGKEHVFVRVGR ETEEPLKIVGSDSKGTTVRFLASTETFGNVEYSFDILAKRIRELSFLNNGVDIELTDERDGKHESFALSGGVAGF VQYMNRRKKTPLHEKIFYAFGEKDGMSVECAMQWNSYQESVQCFTNNIPQRDGGTHLTALRQVMTRTINNYIEANE VAKKAKVETAGDDMREGLTCVLSVKLPDPKFSSQTKDKLVSGEIGPVVNEVISQALTD FLEENPNEAKIITGKIVD AARAREAAARKAREITRRKGVM DGLGLPGKLADCEQKDPALSELYLVEGDSAGGSAMQGRDRKFQAILPLKGIKILNV EKARFEKMLASQEVATLITAGAGIGKEEFNAEKLRYHRIIMT DADVDGAHIRTLLLTFFYRQMPELVERGYIYI AQPLYKAKYQKERYLKDELEKQWLLGLALEKAKIISDGRITIEGAE LADTAQFLLAKTVIEQESRFVDELVLIR AMLHASPIDLTSSENADKAVAE LSGLLDEKEVALERIEGHEGHRFIKITRKLHGNVMVSYIEPKFLNSKAYQTLTQ TAAALKGMVGEKAKLYKGNGYDADS FETALDILMSVAQKMSIQRYKGLGEMNPEQLWETTMDPAVRRLKVRIE DAIAAEV FVTLMGDEVEPRRAFIENNALIAQNIDA
35	0219	MSQRRVITGLGQVSPVGNVTA EAWDTLLTGKSGIGAITRFDTS DINSRVAGEVRGFDIGQYISAKEARRMDVFIH YGIAALQAIADSGLD DVENLDKDRIGVNI GSGIGLPGIEVTGKAVIEGGARKINPFFIPGSLINLISGHVITLK GYRGPSYGMVSACTTG AHAIGDSLMIKYGDADIMVAGGAEGAISTLGVGGAAMKALSTRNDPATASRPWDKGR DGFVIGEGAGILVLEELEHAKKRGAKIYAEIVGFGMSSDAYHITAPNEEGPALAVTRALKDAGINPEDVDYVNAHG TSTPLGDANETKALKRAFGEHAYKT VVSSTKSMTGHL LGAAGGVEAVYSILAIHDGKIPTTINIFEQDVEAGCDLD YCANEARDAEIDVAISNSFGFGGTNGTLVFRFKG
36	0246	MAIYQSGVIFDQVDTANPDCWTLDEYVKRGGYTALRKILSENISQTDVIDE VKTSGLRGRGGAGFPTGLKWSFMPR SFPGEKYVVCNTDEGEPTFKDRDIIMFNPHALIEGMI IAGYAMGAKAGYNYIHGEIFEGYQRFEEALEQARAAGF LGKNILGSDFEFELFAHHGYGAYICGEETALLESEGGKQPRFKPPFPASFGLYGKPTTINNTETFSVPFIIRD GGQAFADKGINAGGKTLFCISGHVERPGNYEVPLGTPFAEVLKMAGGMRGKKLKA VIPGGSSAPVLPADIMMQT NMDYDSISKAGSMLGSGAIIVMEDVCMVKALERLSYFYDESCGQCTPCREGTGWLYRIVHRIVEGKGKMEDLDL LDSVGNQ MAGRTICALADA AVFPVRSFTKHFRDEFVHYIEHGGPMKEHKWGGW
37	0286	MNFTRLNLQVLSTVQKKGNTFSDSPLNSFGGALVAGVASMLLNGKNRKTITKIGSTAALGYLARYGQMWQONKG RATVVTQSDFO PAGETEETYSRTVLRTMIAAAASDGMIDEAERTIEQESGTD PETAAWLAAEYRLPASIEDIAAAV GNDEALAAEAYLAARLVCADLSRKETVFLARLSQALKLDDNLVESLERQLGF
38	0294	MKLKTLALTSLTLLALAACSKQAETSVPADSAQSSSSAPAPAE LNEG VNYTVLSTPI PQQAGKIEVLEFFGYFC PHCAHLEPVLSEHIKTFKDDTYMRREHVWGD EKMPLARLAAAVEMAGESDKANSHIFDAMVNQKINLADTDTLKK WLSEQTAFDGKKVLA AFEAPESQARAAQMEELTNKFQISGTP TIVVGGKYQVEFKDWQSGMTTIDQLVDKVREEQK KPQ
39	0329	MSVGLLRILVQNVQVTVQAEHYNESQAGKEVLPM LFSGVI SPKSLAALIARVFSYSILDLRHYPRHRVLMGVL TEEQMVFEHCVVFRRGDKVFFAVSDPTQMPQIQKT VSAAGIEVELVIVEDDQLAGLLDWVGSRSSTSLQELGEGQ EEESH TLYIDNEEAEDGPVPRFIHKTLSDALRSGASDIHFEFYEHNARIRFRVDGQLREVQOPPIAVRGQLASRI KVMSRLDISEKRIPQDGRMQLTFQKGGKPVDFRVSTLPTLFGEKVVMRILNSDAASINIDQLGFEPFQKLLLEAI HRPYGMVLVTGPTGSGKTVSLYTCNLILNTESVNIATAEDPAEINLPGINQVNVNDKQGLTFAAALKSFLRQDPDI IMVGEIRDLETADIAIKAAQTGHMVSTLHTNNAPATLSRMLNMGVAPFNIASSVSLIMAQRLRLRLCSSCKQVE RPSASALKEVGFTDEDLAKDWKLYRAVGCDRCRGQYKGRAGVYEVMPISEEMQVRIMNGTEVDILDVAYKEGMV DLRRAGILKVMQGITSL EEV TANTND

40	0335	MSLQNIETAFENRADITPTVTPEVKEAVLETIRQLDSGKLRVAERLGVGEWKVNEWAKAVLLSFRIQDNEVLN DGVNKYFDKVP TKFADWSEDEFKNAGFRAVPGAVARRGSFVAKNVVLMPSYVNI GAYVDEGAMVDTWATVGSQAQI GKNVHLSGGVGIGGVLEPLQAAPTIIEDNCFI GARSEIVEGVIVEEGSVISMGVFIGQSTKIFDRTTGEIYQGRVP AGSVVVSGSMPSKDGSHSLYCAVIVKRVDQAQTRAKTSVNELLRGI
41	0336	MGFLQGKKILITGMISERSIAYGIAKACREQGAELFTYVVDKLEERVKMAELDSELVFRCDVASDDEINQVFA DLGKHWDLGLVHSIGFAPKEALSGDFLDSISREAFNTAHEISAYS L PALAKAARPMMRGRNSAIVALS YLGAVR AIPNYNVMGMAKASLEAGIRFTAACLGKEGIRCNGISAGPIKTLAASGIADFGKLLGHVAHNPLRRNVITIEEVGN TAAFLSLDLSSGITGEITYVDGGYSINALSTEG
42	0337	MSRPVPAVFGSVFHSQMPVLAYREGKWQPTQWSSQDLSLAPGAHALHYGSECFEGLKAFRQADGKIVLFRPTANI ARMRQSADILHLPRPETEAYLDALIKLVKRADEIPDAPAALYLRPTLIGTDPVIGKAGSPSETALLYILASPVGD YFKVGSVPKILVETEHIRCAPHMGRVKCGGNYASAMHWLKAKEAYGANQVLFPCNGDVQETGASNFILINGDEII TKPLTDEFHGVTRDSVLTVAKDLGYTVSERNFTVDELKAAVENGAEAILTGTAAVISPVTSFVIGGKEIEVKSQE RGYAIRKAITDIQYGLAEDKYGWLVEVC
43	0351	MTILSDVKALGQQIWL DNLSRSLVQSGELAQMLKQGVCGVTSNPAIFQKAFAGDALYADEIAALKQQNLSPKQRYE TMAVADVRAACDVCLAHESTGGKTGFVSLEVSPELSKDAQGTVEEARLYAAIGCKNAMIKVPATDAGIDALETL VSDGISVNLTLFSRAQTLKAYAAARGIAKRLAAGQSVAHIQVVASFFISRVDGALDITLPHDLKGKIALALAKA AYQDWAQYFGSPEFAALETKGANRVQLLWASTGVKNPAYPDTLYVDSLIGAHTVNTVPDITLKAIDHGTAKATLT EGVEEAQQLAETAALGIDVETLATRLQEDGLKQFEEAFKLLAPLA
44	0359	MSIKNAVKLIEESEARFVDLRFDTDKGQKHHTVTPARIVLEDPEEWFENGQAFDGS SIGWKGIQASDMQLRPDAS TAFVDPFYDDATVVLTCDDVIDPADGGYDRDPRS IARRAEAYLKSSGIGETAYFGPEPEFFVFDGIEFETDMHKTR YEITSESGAWASGLHMDGQNTGHRPTVKGGYAPVAPIDCGQDLRSAMVNILEELGIEVEVHSEVGTGSQMEIGTR FATLVKRADQTDQMKYVIQVNAHNGKTATFMPKPIMGDNGSGMHVHQS IWKDGQNLFAGDGYAGLSDTALYYIGG IIKHAKALNAITNPSSTNSYKRLVPHFEAPTKLAYS AKNRSASIRIPSVNSSKARRIEARFPDPTANPYLAF AALLM AGLDGIQNKIHPGDPADKNLYDLPEEDALVPTVCASLEEAL AALKADHEFLLRGGVFSKDWIDSYIAFKEEDVRR IRMAPHLEFEMYYSL
45	0382	MTKQLKLSALFVALLASGTAVAGEASVQGYTVSGQSNEIVRNNYGECKWNA YFDKASQGRVECGDAVAPEPEPEP EPAPAPVVVVEQAPQYVDETISLSAKTLFGFKDSLRAEAQDNLKVL AQLRSRTNVQSVRVEGHTDFMGSDKYNQA LSERRAYVVANNLVSNGVPVSRI SAVGLGESQAQMTQVCEAEVAKLGAKVSKAKKREALIACIEPDRRDVVKIRSI VTRQVVPANH HQH
46	0390	MYTRIMEISPWTLRS AKLEKEHKRLQESLTS LGNGYMGMRGSFEETYSADSHLGTYIAGVWFPDKTRVGGWKN GYP KYFGKAINAFNFSVKVIFVDGQEVDLAKNDVAGFSVELDMQHGVLRRSFTVFGVRENVCKFLSVAQKELAVIRWEA VSDVGKTHQVRIDSIIDADVKNEDSNYEEKFWQVLDKGVS DLSYIAAQTVANPFGEVQFTVNAEQTFAGSFKALG GSQTDWQVSNSEFESEVGSTPETFEKRVIVTTSRDYQSLEAVKAAGRALSEKIAGVAFETLLDAHKAGWLHRWEIAD VVIEGSDEAQOGIRFNLFQLFSTYYGEDARLNI GPKGFTGEKYGGATYWDTEAYAVPLYLALAEPEVTRNLQYRR NQLPQAQHNAREOGLAGALYPMVTFTEGIECHNEWEITFEIHRNGAIPYAIYNYTNGDEGYLAKEGLEVLVEVS RFWADRHFVSKRNGKYMIGHVGTGPNEYENNINNNWYNTLAAWVLDYTR EALAKYPRPDLNVRADLEKWDI SAN MYRPHDEELGVFVQHDGFLDKDIRPVSALSPDDLPLNQKWSWKILRSPFIKQADVLOGIYFFSDRFNIDEKRRNF DFYEEMTVHESSLSPCIHSILAAELKKEEKAVEMYQRTARL DLDNYNNDTEDGLHITSMTGSWLAIVQGFQMQMTW GGKLSFAPFLPSAWTG YAFHIN YRGLIKVAVGKENVVFTLLKGESLDLQVYVGKIDITLDGSHTVALEK
47	0391	MTFTAVLFDLDGVITDTAEYHYRAWKKLAEELGISIDRK FNEQLKGVSRDDSLKRI LAHGKTVSEAEFAELTRRK NDNVVEMIQAVKPEDVYPGILPLLEALRANGKKIALASAKNGPFL LERMGLTHFFDAIADPAVAHASKPAPDIFL AAAEVGDADIRQCIGIEDAAAGVAATKAAGALPIGVGKAEDLGS DIALVSGTAELTYAYLQSVWEQSGR
48	0426	MEQQQRYISVLDIGTSKVLALIGEVDQDDKINIVGLGQAPSRGLRAGMVTNIDATVQAIQAVNDAELMADTKITH VTTGIAGNHIRSLNSQGVVKIKDGEVTQADIDRAIETAKAINI PPQKILDAVVQDYIIDTQLGVREPIGMSGVRL DTRVHIITGASTAVQNVQKCIERCGLKSDQIMLQPLASGQAVLTEDEKDLGVQCIDIGGGTTDIAVMNGAIRHTS VIPAGGNLITKDLKSLRTPLDAAEYIKIHYGVASCDTEGLGEMIEVPGVGDRTSRQVSSKVLAAIISARIQEIFG VVLGELQKSGFPKEVLNAGIVLTGGVSMMTGIVEFAEKIFDLPVRTGAPQEMGGLSDRVTRPRFSTAIGLLHAACK LEGNLPQPENGA VQEREGGGGLLARLKRWIENSF
49	0427	MEFVYDVAESAVSPAVIKVIGLGGGCGNAINNMVANNVRGVEFISANTDAQSLAKNHA AKRIQLGTLNLRGLGAGA NPDIGRAAAQEDREAEIEAIRGANMLFITTMGGGGTGTGSAPVVAEIAKSLGILTVAVVTRPFAYEGKRVHVAQAG LEQLKEHVDSLIIIPNDKMLTALGEDVTMREAFRAADNVLRDAVAGISEVVTCPSEIINLDFADVKTVMNSRGIAM MGSGYAQGIDRRMATDQAISPLDDVTLDGARGVLNIT TAPGCLKMSSELSEVMKIVNQSAHPDLECKFGAAED ETMSEDAIRITIIATGLKEGAVDFVPAREVEAVAPSKQE QSHNVEGMIRTNRGIRTMNLTAADFNDQSVLDDFEI PAILRRQHNSDK
50	0446	MSQTIDELLLPHRNAIDTIDAEILRLNLNERAQAHAIGELKGTGAVYRPEREVAVLRRIQDLNKGPLPDSEVARLF REVMSACLAVRPLTIAYLGPGTFTQQAIIKHFGHAAHTMACPTIDDCFKQVETROADYL VAPVENSTEGSVGRT LDLLAVTALQACGEIVLRIHNNLLRKNNGSTEGIAKVFSHAQALAQCN DNLGRHLPNAERIAVSSNAEAARLVAES DDGTVAAIAGRTAAEYGLDMVAECIEDEPNNTTRFLVMGHETGASGSDKTS LAVSAPNRA GAVASLLQPLTESG

		ISMTKFESRPSKSVLWEYLFFIDIEGHRRAQIQTALERLGERASFVKVIGSYPTAVL
51	0462	MOAFSLYPPVGHPSAKKRQNRADVFLPFWKQDNFLGKSVQYRFEFAQIYFTMPKPCAGVTMGRGDDFFSNLFHQE SARMKKSVLAVLAALSACGGSEKNAVQPOADAASANAEEAATDTLNIYNWSNYVDESTVEDFKANNLKLTYD LYENNETLEAKMLTGKSGYDLVVPGLAFLPRQIEAGAYQKVNKDLPNYKNIDPELLKMLETADPGNQYAVPYFSG VNTIAITAKGKELLGGKLPENGWDLFLKPEYTHKLKSCGIALWDTPEMFPIILNLYLGKDPKGSNPEDLKAAAEVL KSIRPDVKRFSPSII DELARGDICALAGNGGDLNLAKARSEEVKNVVGIEVLTPKGMGFWIESWLIPADAKNVANA HKYINYTLDPFIAAKNGIAVT FAPASKPAREKMPAELVNTRSI FNEQDMKDGFWMPQMSDADKLSVSLWQKIKV GTN
52	0466	MRTNYCGLISEQYLDQTVTVKGVHRRRDHGGVIFIDLRDREGIVQVVIDPDTPEAFADSSRNEYVLSITGRVR NRPEGTNDKMISGKIEILAKEIEVLNAAATPPFQIDDENISENVRLTNRVIDLRRPVMQRNRLRYQVAMGVRRY LDAQGFIDIEPTMLTRSTPEGARDYLVPSRVHPGEFFALPQSPQLFKQLLMVAGFDRYYQITKCFRDEDLRADROP EFTQIDLETSFLNEDEIMDITEGMAKQVFKDALNVLDGDFPRMPYSEAMFYYSKDKPDMRINLKFTELDTLMKTEE FKVFRGAADMKGGRVVALRVNGAEFSRKEIDEYTKFVGIYGAAGLAYIKVNDVSNLSNGEDSGLQSPIVKYLSEN ALKEIIARTGAQNGDIIFFGADKAKVNEAIGALRIKVGLEHGKDNGYFTDEWKPLWVVDFFMFEYDEEADRYVAV HHPFTAPKEGHEDLMVSDPANCLARAYDMVLNGWEIGGGSIRIHRADVQEKVFAALKISPEEQEKFGLLDNLKF GAPPHGGLAFGLDRLVTLMTGAESIRDVIAFPKTQRAQCCLTNAPNSVDDKQLRELSRLRQKATETKEV
53	0477	MRENKII FTGPVGVGKTTAIAAISDEALVQTDASASMTLDRKRNTTVAMDYGAISLDEDTKVHLYGTPGQERFNF MWEILSQSGMGLVLLDNARTNPLKDLLEFFLHSFRGLLEKAPVVVGITKMDIRSQPGIDVYHKYLAKHNLNVPVFE IDARKEDDVKQLVSAMLSIDPGLV
54	0530	MTVPHIPRGPMADIAAFRLTEEEKQRLDPAVGGIILFRRNFONIEQLKTLTAEIKALRTPELI IAVDHEGGRVQ RFIEGFTRLPAMSTLGEIWDKDGASAAETAAGQVGRVLATELSACGIDLSFTPLVDLDWGNCPVIGNRSFHRNPEA VARLALALQKGLTKGGMKSCGKHFPGHGFEVGDHVLVPEDWRSLSLELTADLAPFRIMSREGMAAVMPAHVVYPQ VDTKPAGFSEIWLKQILRRDIGFKGVI FSDDLTMEGACGAGGKERARISFEAGCDIVLCNRPDLVDELREDFRI PDNPTLAQRWQYMANLTGSAQAQAVMQTADFQAAQAFVAGLASQDQTAGGVKVGAEAF
55	0540	MFFKHIEAAPADPILGLGEAFKAETREKVNLGIGVYKDSAGATPLVKAVKEAEKRLLSETTKNYLTIDGVADYN AQTQILLFGKDHEIIASRRAKTAQSLGGTGALRIAEEFAKRQLNAQTIWISNPTWPNHNIAKAVGIQDKPYRYD AAKHGLDWDGMIEDLSQAQKGDIVLLHGCCHNPTGIDPTPEQWETLAKLSAEGWLPFLDFAYQGFNGLEEDAYG LRVFLKHNTPELLIASSYSKNFGMYNERVGAFTLVAEDEETAARASHQVKTII RTLYSNPASHGANTIALVLKNDL KAQWIAELDEMGRGRIKAMRQKFVGLLKAKGASQNFDFIIKQNGMFSFSGLTPEQVDRKNEFAIYAVRSGRINVAG ITDNNIDYLCESIVKVL
56	0546	MKMQAVVVNKNVAGDVEVIERVPLEYGEALVEVEYCGVCHTDLHVAAGDYGEKPGRVLGHEGIGLVKEVADGVK NLKVGDRVSIWLFQSCGSCYCNTRGRETLCRSVLNAGYTADGGMATHCIVSADYAVKVPGLDPAQASSITCAGV TTYKAIKVSQVRPGQWIAIYGAGGLGNLGVQYAKKVFAGHVVAIDINDDKLAFKETGADLVVNAEKEDAQKVIQE KTGGAAHAAVTVASAAAFNSAVNCVRAGGRVVAIGLPPESMDLSI PRLVLDGIEVVGSLVGTGRKDLLEAFQFGAEG LVVPKQVLRALDEAPAFQEMREGKITGRMVIDMKKECGCGHHH
57	0564	MEIILGIVMFTVIVLVLALMILFAKSKLVSEGDITIKVNGEKELTMPAGGKLLGALANEGIFIPISACGGGSGCGQC RVVVKSGGGDILPTELSHISKREAREGCRSLSCQVNVKTDMDIEVPEEVFGVKKWECTVISNDNKATFIKELKLAIP EGEEVFPFRAGGYIQIEAPPHTVAYKDFDI PKEYHEDWDKYNLWQYVSKVDEPI LRAYSMASYPEEKGIIMLNRIA TPPPRVDPAPPQMSSYIWSLKPDKVTISGPFGEFFAKDTDAEMVFIGGAGMAPMRSHIFDQLKRLNSKRKITF WYGARSKREMFYVEDFDQLAAEFNFTWHVALSDPLPEDNWDGYTGFIHNVVYENHLKNHEAPEDCEFYMCPPIM NQSVIKMLKDLGVEDENILLDDFGG
58	0589	MNLIQLEQEEIARLNKEIPEFAPGDTVVSVRVVEGTRSRLOAYEGVVIARRNRGLNSNFIVRKISSGEGVERTF QLYSPTVEKIEVKRRGDVRRAKLYLLRGLTGKAARIKEKLPARKG
59	0595	MSRVLLVDDALLTELTEYLSEAELNVRVSPDGEAGVQEILSGQYDVVVLDSMMPMKNGLDVLKNVRARSTVPII MLTAKGDDIDRIIGLEMGADDYVPKPCTPRELLARINAILRRAQHSGEQNAPNSISVSDVVLPAKRQASVKDMP LELTSTEFNLLEVLMRHAGQVVSKETLSVEALDRKLAKFDRSIDVHISSIRHKLGDASLIQTVRGLGYLFVKN
60	0604	MKAARFYDKGDIRIEDIPEPTVAPGTVGINVAWCIGCTDLHEFMGPIFIPPCGHFPHISGESAPVTMGHEFSGV VYAVGEGVDDIKVGQHVVEPYIIRDDVPTGEGSNYHLSKDMNFILGCGGGLSEKIAVKRRWVHPISDKIPLDQ AALIEPLSVGHAYVRSGAKEGDVALVGGAGPIGLLLAAVLKAKGIKVIITELSKARKDKARESADVADYILDPSEV DVVAEVKLTNGEGVDVAFFECTSVNKVLDLVEACKPAANLVIVSIWSPATINVHVSVMKELDVGRGTIAYCNDHA ETIKLVEEGKINLEPFITQRIKLDLVSKGFERLIHNNEASAVKII VSPNL
61	0610	MLPVRFRVSDGIKRLTPASNQTAFYHPFENPFCRYSSFYWSIAIMTATTASSAKPYLKIQLGVKKFGDNYAVDNI LDLIYQHEIFALLGSSSGSKSTLLRMLAGMESPNQGGKIIDGQDITKLAPYDRPINMMFQSYALFPHMTVEQNIAF GLKQDKMPKGEIARVEMLRLVQMTKFAKRKPHQLSGGQQORIALARSLAKRPKILLDEPLGALDKKLROQTQL ELVNTLEQVGVTCIMVTHDQEEAMTMATRIAIMSDGQLQQVGTSPDVYDYPNSRFTAEIFIGETNIFDGVVIEDHAD YAVIECEGLENHVRIDHGLGGPSEQDLWVSIRPEDIIDLYKEKPEYLGDNWAKGTVEIAYLGSFAIYHIKLGNGR VVKSQVPAPYWYVRNITPPTWDETUYISWPNQPTPLFR



62	0617	MHVSELOTLHISKLELAEHGIENANFRKQDLVFAIVRQMMKKGEGFTCSGTLEILPDGFGFLRSADTSYLAPG DDIYVSPTQIRRFNLHTGDTIEGSSVRVPKDNERYFALVRLDTINGDHPEVCRHKILFENLTPLFPTEQLKLERDLK SEENLTGRAIDLISPIGKGQRALLVAPPKSGKTVMLQNIHAHVANTANYPEVELIVLLIDERPEEVTEMSRSVRGEVV SSTFDEPAQRHVQVAEMVLEKAKRMVEHKKDVILLDSITRLARAYNTVVPTSGKILTGGVDANALHRPKRFFGAA RNVEEGGSTIIATALVETGSRMDDVIYEEFKGTGNMELHLDRMAEKRLFPAININKSGTRREELLVPNDQLQRM WLLRKFLHPMDEIEAAEFLLGKIKASKNNDDFFELMRGK
63	0618	MADNYVIWFENLRMTDVERVGGKNASIGEMISQLTEKGVVPGGFATTAEAYRAFLAHNGLSERISAALAKLDVED VAELARVGKEIRQWILDTFFPEQLDAEIEAANKMADAGGADISVAVRSSATAEDLPDASFAGQOETFNLINGLD NVKEAMHHVFASLYNDRAISYRVHKGFEHDI VALSAGVQRMVRSDSGASGVMTLDTESGYDQVVFVTSYGLGEN VVQGA VNPDEFYVFKPTLKAGKPAILRKTGSKHIKMIFTDKAEAGKSVTNVDVPEEDNRNFSITDEEITELAHYA LTIEKHGRPMDEIWRDGLDGKLYILQARPETVKSQEEGNRNLRFAINGDKTVLCEGRAIGQKVGQGVRLIKD ASEMDSVEAGDVLVTDMDTPDWEPMKRASAI VTNRGGRTHAAI IARELGI PAVVGCNATELLKNGOEVTVSCA EGDTGFIYAGLLDVQITDVALDNMPKAPVKVMNVGNPELAFS FANLPSEGI GLARMEFI INRQIGIHPKALLEFD KQDELKAEITRRIAGYASPVDFYVDKIAEGVATLAASVYPRKTIVRMSDFKSNEYANLVGGNVYEPHEENPMLGF RGAARYVADNFKDCFALECKALKRVRDEMGLTNVEIMI PFVRTLGEAEAVVKALKENGLERGKNGRLIMMCELPS NAVLAEQFLQYFDGFSIGSNDMTQLTLGLDRDSGLVSESFDERNPAVKVMLHLAISACRKQNKYVIGCGQGPSDHP DFAKWLVEEGIESVSLNPDVTIETWLYLANELNK
64	0623	MKKTIVAAAILSLALTACGGGSDTAAQTPSAKPEAEQSGKLNINWSDYVDPETVAAFEKETGIKTRSDYYDSNET LEAKVLTGKSGYDLTAPSIANVGRQIKAGAYQKIDKAQIPHYGNIDKDLKMMEAVDPGNEYAVPYFWGINTLAIN TQQVKALGTDKLPENEWDLVFKPEYAKLSCSGISYFDSAIEQIPLALHYLGKDPNSENPEDIKAAVDMMKAVRG DVKRFSSSGYIDDMAAGNLCAAIGYGGDLNIAKTRAEAAANGVEIKVLT PKTGVGVVWDSFMI PRDAQNVANAHRY IDYTLRPEVAAKNGSFVTYAPASRPARELMDKEYTSDASIFPNKELMEKSFIVSPKSAESVKLVGLWQGLKAGK
65	0631	MAKVLIVPVSAGLDASAAAQAFKALDAQIFQAVDATAETLLAQGKSDDWFDALVGKVAALDAANLVI EGIAPDAD KIYLAGKNVELALS LDAAAVFAVRSDNADAE LANRVNLAKQFFAAAPGVLEGFVVDGAAASVAEAAA EKTGLTFF GSSDALKDVS VLAGREAKRLSPAQFRYNLIDFARQADKRIVLPEGAEPRTVQAAAICHEKGIARCVLLAKREEVEA VAKERGISLPDSLEIIDPASLVEQYVEPMCELRKSKGITPEDARKQLQDVTVLGTMMAQNDVDGLVSGAVHTTAN TIRPALQLIKTAPGASLVSSVFFMLLPNOVLVFGDCAVNPNPTAQQOLADIAIQSADSAKAFGIDPKVAMISYSTVN SGSGPDVDVTIEATKLAREKRPDLAIDGPLQYDAATVPGVGSKAPGSPVAGQATVLPVLPDLNTGNCTYKAVQRNA NVLSVGPLQLGLRKPVNDLSRGALVEDIVFTIALTAVQAKQMEG
66	0634	MKTSIRYALLAAALTAATPALADITVYNGQHKEAAQAVADAFTRATGIKVKLNSAKGDQLAGQIKEEGSRSPADVF YSEQIPALATLSAANLLEPLPASTINETRGKGVPAAKKDWVALSGRSRVVYDTRKLSEKDEKSVLNYATPKWK NRIGYAPTSGAFLEQVVAIVKLKGEAAALKWLKGLKEYGKPYAKNSVALQAVENGEIDAALINNYWHAFAREKGV QNVHTRLNFRHRDPGALVTYSGAAVLKSSQNKDEAKKFVAFLASKEGQALTA VRAEYPLNPHVSTFNLEPIAK LEAPQVSATTVSEKEHATRLLEQAGMK
67	0637	MHDKTWSGRFNEPVSELVKQTASIGFDRRLAEWDIQGSLAHAQMLKETGVLDDEGLADIRRGMAEILEEIRSGKI EWSSDLEDVHMNIERRLTDKIGDAGKRLHTGSRNDQVATDIRLWLRDQITVIOQLIQSLQATALLDLAEQNAETVM PGFTHLQVAQPVSFHHMLAYVEMLRDNERMADCRVRNRMPLGAAALAGTTYPIQREITAELLGFEQIQNSLD AVSDRDFAIETAAASLVMVHLSRLSEELILWMSPRFGFIDIADRFTCGSSIMPQKNPDVPELVGRKSGRVIGHL IGLITLMKSQPLAYNKDNQEDKEPLFTADTLIDTLRIYADMMRGVTVKPDNMRAAVMQGFATATDLADYLKKG PFRDAHEVVAQAVRHADQAGVDLSELPLEVLQGFSDLIADDDVYGVLTPEGSLNARNHLGGAPEQVRVQVWRREM LA
68	0641	MADFNQILTPGDVDGGIINVVNEIPAGSNHKEWNRKLA AFQLDRVEPAI FAKPTNYGFIPQTLDEGDGDELVDLLV TEQPLATGVFLERAVIGVMKFVDDGEVDDKIVCVPADDRNNGNAYKTLSDLPQQLIKQIEFHFNNHYKDLKAGTTK VESWGDAAEAKKVIKESIERWNKQA
69	0663	MKKALATLIALALPAAALAE GASGFYQADAAHAKASSLSGSAKGFSPRISAGYRINDLRFVADYTRYKNYKAPST DFKLYSIGASAIYDFDTQSPVKPYLGARLSLNRASVDLGGSDSFSQTSIGLGLVTGVSYAVTPNVLDLAGYRNYI GKVNTVKNVRSGELSAGVRVKF
70	0697	MKEHKARKRFGQNFLODTRIISDIVNAVRPQADDVIEIGPGLAAITEPLAKKLNRLHVVEIDRDIVCRLKTL PFA DKLVIHEGDVLQDFDNGIAGKKKIVGNLPYNISTPLLFKLAEVADDVDMHFMLOKQEVVERMVAPKSN DYGR LGV MLQYFFDMEMLIDVPPE SFDPAPKVDSAVVRMIPVKHRI GKADDFEHFAKLVLKLAHFHQRRTIRNNL KELAGDDDL QAVGINPDRAEHIAPEKYVALSNYLAGKV
71	0703	MKKILLTVSLGLALSACATQGTVDKDAQITQDWSVEKLYAEAQDELNSSNYTRAVKLYEILES RFPSTRHAQQSQL DTAYAYYKDDEKDALAAIDFRRLHPQHNPMDYALYLRGLVLFNEDQSFLNKLASQDWSDRDPKANREAYQAF AE LVQRFPNSKYAADATARMVKLV DALGNGEMSVARYYMKRGAYIAAANRAQKIIGSYQNTRYVEESLAILELAYKKL DKPRLAADTRRVLETNFPKSPFLKQPWRSDMPWRYWH
72	0711	MSSGNIHHSMTGFANAAECGSKRINLDLRAVNHRFLDIQIRMPDDLRYLES GIREKISSHIARGKVECKIQIQD AENGQSLELNRDLVGQLAEINKDLRKHDLAKLGVADILRFPGLASQRENT EELAKSITEKALKDFTAARK REGKKLGEHLQRLAEAMEEIIDALSELFPPTLLETHKEKIRARLVEAVGSI DNRLQOEFALFIQKSDIDEESRLR

		THIAEVRRIIVTEHKGSSGKRLDFLMQELNREANTLGSKSIAAECTQASVELKVLIEQMRREQVQNI
73	0720	MLNITLPGDSVRQYESPVTVQAIAASIGAGLAKATVAGRVNGKLVDACDPIVEDSAVQIITPKDQEGIEIRHSCA HLVGHAVKQLYPNAKMVIGPVIEEGFYDIATEKPTPEDVAAIEARMKELIAQDYDVVKIMTPRAEAIKIFQERG EEYKRLRLIDDMPEVEAMGYHHQYVDMCRGPHVPNTRFLKNFKLTKLAGAYWRGDSNNEMLQRIYGTAWATKDEL KAYIQRIEEAEKRDRHKLQKQLDLFHLQDEAPGMVFWHPKGWALWQVIEQHMRKELNAGYKEVKTPOIMDKTFWE KSGHWDNYKDNMFVTSSEKREYAVKPMNCPGHVQIFNNGLSYRDLPMRLAEFGSCHRNPSGALHGLMRVRGFGVQ DDAHIFCTEDQIVSEARAFNELLIRIYKQFGFHDVSVKLSLRPEKRAGSDVDWDKAEQGLREALTACGVWEGELPG EGAFYGPKEIYHVRDALGRSWQCGLQLDFVLPRLNAEYVTENNDRARPVMLHRAILGSLERFIFIGILIENHAGSF PLWLAPVQLVIMNITENQADYCREVAAKQAAGFRAELDLRNEKIGYKIRDNSQYRFPYQIVVGDKKEQENKVAVR RKAEDLGSLLDDFIAQLQOEITDALVNH
74	0724	MENVNRIVAEGIAAVEAAQDFNALEQIKARYLGKTGELTGLLKTGLQMSPEERKTIGAHINECKNRFQTAFAKRE ALNEVKLQARLAAEALDITLPGRAQEGGSLHPVTTLQORVVELFHGMGEVADGPEIEDDFHNFQALNIPANHPAR AMQDTFYVENGDLRTHTSPIQIRYMLDKKEPPIRIAPGRVYRVSDATHSPMFHQAEGLWVEEGVTFADLKAVF TDFIRRFERDDLQVRFRPSFFPFTEPSAEIDIMGENGKWLEVGGCGMVHPNVLKNVNIDPEKGTGFAFGIGLDRF AMLRYNVNDLRLFFDNDLNLKQFAK
75	0728	MQFSYSWLKTQADTELSSDKLEHLLTMSGLEVEEAETAAPAFAGVIVAEVKSVEKHPDADRLNVTRVDAGTGGLVQ IVCGAPNVKAGIKVPCSLPGAVLPGNFKIKPTKMRGEVSDGMLCSTDELGLPDDGVNGLHILPEDAPVGTNIREYL DLDDTLFTLKITPNRADCLSIKGIAREVSALTGCAFRQPEIHTAPITGSRKQPVQINAPADCGRFISRVIEVNNAR ATTPDWMKORLERSGIRSISALVDIGNYVMLEIGQPMHVFADKLSGLHIRRAREGETLECLNEKTVSLSENTLV VADEKGVLSLAGLMGGAASAVSDGTQNVILEAAWFAPEIAGKSRYQYFGSDSSFRFERGVDRYQLQADAIERATEL VLQICGGAAGEMVEAQGELPEAKQVGLRLDRLKTVLGVDIPAEQVETILQHLGLQPEKTAEGFRVTAPSRFRDIEI EADLIEEIGRVYGYENIPDDYTSGRKMLELPETRRPRFAVYNEMAARGYREVVSAYFVDEQWEQDFAANADPIRL QNPLAAQYAVMRSTLIGGLVEILQNNLNKQNRVCVEIARVFSKSGSDGQFVQNERIGGLWYGAVMPEQWGGKTRN ADFYDIKADVENLLKNKAVEFVKTHPALHPGRAANIVSDGKIVGFVGLHPKWLQKYDLQAPLVFEIDMAAVLE CGKTRYRVVSKFQPVRRDLAFVMPEAMSHDDLVLKGAANKLVQEISVFDVYRGTLPEGMKSVAVKVLQDMEN TLTDEAVEPLIGKLI GAATAAGARLS
76	0743	MGGQKTHFGFSTVNEDEKAGKVAEVFHSVAKNYDIMNDVMSAGLHRVWKHFTINTAHLKKGDKVLDIAGGTGDLRSR GWAKRVGKEGEVWLTIDINSSMLTVGRDRLNNEGMIPLVSLADAELPFDPNYFNLVSVAFLRNMTHKDAALKEMY RVLKPGGTLVLVLEFSKIYKPLEGAYDYFSFKLLPVMGRLIAKDAESYQYLAESIRMHPDQETLQKMMLDAGFDSVD YHNMSAGIVALHKGVKF
77	0757	MSEIGLVKIYFGKVRDLYEIDDKRMLMVASDRLSAFDVLDDPIPSKGEILTQISNFWFKKLAHIMPNHFTGQTVY DVLPENEAKALEKRAVVAKLTPVKVEAIVRGYLAGSGWKDYQKTGSVCGIQLPEGMQEAQQLPEVIFTPTSTKAAV GDHDENISFEECGRIIGKELAEVRAKAVRLYTEAAEYAKSRGIIICDTKFEFGLDENGTLTLMDEVLTDPSSRFW PADQYKVGNTNPPSFDKQFVRDWLEQSGWNKKAPAPKVPADVIQKTVEKYREALTLTQD
78	0758	MMFDKHVKTFQYGNQTVTLETGEIARQAAAIVKSMGDTVVVLVAVTTNKEVKEGQDFFPLTVDYLERTYAAGKIPG GFFKREGKQSEKEILTSRLIDRPIRPLFPEGFYHDIQIVAMVVSVDPEIDSDIPAMLGASAAVLVSGVPFAGPIGA ARVGYVNGVYVLPNTKAEAKSLDLVAGTSKAVLMVESEAKILPEDVMLGAVVYGHQDMQVAINAINEFADEVN PELWDWKAPETNEELVAKVRGIAGETIKEAFKIRQKARSALDEAWSAVKEALITEETDTLAANEIKGIFKHLEA DVVRSQILDGQPRIDGRDTRTVRPLNIQTSVLPRTHGSALFTRGETQALAVATLGTSRDEQIIDALSGETYDRFML HYNFPYSTGEVGRMGAPKRREIGHGRLAKRALLAVLPKPEDFSYTMRVVSEITESNGSSSMASVCGGCLSLLSAG VPLKAHVAGIAMGLILEGNKFAVLTDLGDEHLDGMDFKVAGTTEGVTALQMDIKIQIGITKEIMQIALAQAKEAR LHILDQMAAVAGPOELSAPRLFTMKINQDKIREVIGKGETIRSITAETGTEINIAEDGTITIAATTQEAAGDA AKKRIEQITAEVEVGKVEGTVVKILDNNVGAIVSVMGKDLVHISQIAHERVRNVGDYLVQGVQVNVKALEVDD RGRVRLSIKALLDAPAREENAAE
79	0763	MKIANISITELIGNTPLVKLNRLTEGLKAEVAVKLEFFNPGSSVKDRIAEAMIEGAEKAGINKNTVIVEATSGNTG VGLAMVCAARGYKLAITMPESMSKERKMLLRAFGAELILTPAAEGMAGAIKAKSLVDAHPTDYFMPRQFDNEANP EVHRKTTAEIWRDTDGKVDVVFVAGVGTGGTITGVGEVLKKYKPEVKVVAVEPEASPVLSGGEKGPHTIQIGIGAGF IPTVLNTKIYDSITKVSNEAAFETARAIAEKEGILVGISSGAAVWSALQLAKQENEGKLIVLLPSYGERYLSPT LFADLA
80	0778	MPSETSSPRKENETEVHIPAAPPFIVKQSGSNALAVCALVLAALGLTSGFLVQGVNLKNQELAFNQKIDKAALG ESENAAALKDNLNRQAAIQSELDRLDGNVKANGEQILEMQSYRELTKGRADWLVDDETETILNLAQQVLVTGNIQ TAVGVLEHIDSRLSRFNQAEALLPIQAVSSDLAELKNRPYVDISGTALRLDRLETAVSGLPLMLDGVLPKGVQVKN EAASASWWQNVWEKSLGTLKGLVEIRRLNNDAMLISPEQAYFVRENLRLLDARTALMQRNSEVYQGLNNAEA AVRQYFDAKSPATQSWLKELAEKALDVRMTADDGLKNSLNAVRAVDGTRMTAAENQEAQAESEPAKETAEP AAASDVKTIEAPSLPSEKPEQPAKKQTVPEKAGRSPSAKGERA
81	0791	MIILHTNKGDIKIELDFDKAPVTAKNFEQYVKDGYDGVIFHRVIKGFMIQGGGMENDMNEKETRDPIONEASGL PNDKYTIAMARTSDPHSASAQFFINTADNAFLNFRSKELYKTVVQDWGYAVFGKVVDGFDVDAIEGVSTKRHGY HDDVPSEPVVIAEAV



82	0804	MTVLSKEQVLSAFKNRKSCRHYDAARKISAEDFQFILELGRSPSSVSGSEPWQFIVVQNPETROAIKPFWSGMADA LDTASHLVVFLAKKNARSDSPFMLESKRKRGVTEPDAVAKSLARYQAFQADDIKILDDSRALFDWCCRQTYIALAN MMTGAAAGIDSCPVEGFNYAEMERILSQGFGLFDAAEWGVSVAATFGYRVQEIATKARRPLEETVIWA
83	0814	MQTWQLPEHIADVLPNARQLESAREQLLALFRVHGYELVQPLMEYAHSLTHIDAGLSLKTILVTDRLSGRQLG IRADITPQVARIDAHLLSANQGINRLCYAGPVLHAQPDGLLNMREPLQAGAEMYGFADIRGDIELIDLMLKSMKIA DMGKVLSSLGHIGIFRALSDAHLDAQOSATLLALMQDKDTGAVEAQVKAWKLDGMWAKAFSLLPRLYGGREVLSD ARGRLPDLSSAVGGALGELQAVCDAFPDCIEHIDLSELVDNYHTGLLYAAYAADFHDAAVARGGRYDGLGGYFGRAR PATGFSFDLRSFIGRLPAIERQPAVLVDAEDAEAAHEAVEALREQQCQVVIDYGIHNVSEELAGRLKKTGDGVWQV VKR
84	0815	MAMAKNVVVIGAQWGDGEGKGIVDWLAEAGGVVRFOGHHNAGHTLVVGKKITILRLIPSGILHESLDCFIGSGVV VSPEALLGEIDELNAGVKNVEGRKIAPTCPLILPYHIALDQAREASRGKGIGTTGRGIGPAYEDKVARRAIRA ADLLHPEKLREKLDAVLAYYVQLQHLHNAEPVKAEDVMVIEKVAPRIAPMITDVSRLVNEKNKNGEKLLEFEGAQ GALLDIDYGYTFVVTSSNCLAGAASAGAGVGPQMLDYVLGIVKAYTTRVSGSGFPFTELFDEVGVGLAERGHEFGSV TGRARRCGWFDAAALKRSIQINGISGCITKLDVMDGVETINICVGYELPDGGKTDILPCGSDAVETCKPIYETMP GWRESTFGVKDYGALPENAKAYLKRIEEVCGAPVAIVSTGPDREETIVLHHPFA
85	0828	MTIIVTGAAGFIGSNIIVKALNQRGITDIVAVDNLSKGEKFKNLAECIAHYLDKHEFIRQVREHILPYQNI EAVFH QGACSDTMNHDGLYMDNNYQYTLDDLWDQDERIPFLYASSAAVYKGGEIFREERELEKPLNVYGYSKFLFDQVL RRRMKEGLTAQVVGFRYFNVYQHEQHKGRMASVAFHHFHQYREHGYVNLFGSNDGYNGEQTRDFVSVEDVAKVN LYFFDHPESGIYNLGTGRSQQFNELAAATVNACRAAEGKPEMSLKELEVEELIRYIPFDALKGKYQSTQADIT KLREAGYKEEFFDVKSGVDRYVWMLLENLA
86	0854	MAQKIQSVKGMNDLLPVKQDKFLTAAFWQAFEDTVGRWTRAYGYQQIRTPIVEQTGLFVRSIGEETDVVGKEMYT FSDSNDLSLSLRPEGTASCLRAVVEHNLLYNSPQKLWYMGPMFRERERPOKGRYRQFHQVGEALGFEQPDIDAEI IAMSADLWEKLGIREYLTLEINSLGNREERAHRAALVEYLTRYEDKLEDESKRRLKTNPLRVLDTKNPDLEICN AAPRLVDYLGEDSQNHVYRFKAMLDGLGIQYIENPRLVRGLDYNNQTVFEWTTDKLGAQATVCGGGRYDGLIEELG GKPAPSIGFAMGIERLLLVSEYGSLEVNAAPDVYAMHQEGADLQVMKYAALRAQGFNVMQHSGYQSLKAQMKK ADNSGARFALIVAQDELANGTVTLKDMNGAHGQQTVAEDLTPTLQQWKNA
87	0875	MAAYDSLMTGNANPELAQRVVRHLDISLGNASVSKEFSDEGAVELLENVRGRDVFILQPTCAPTNDNLMEILTM ADALKRASAGRITTAIPYFGYARQDRRPRSVRPISAKLVANMLYSAGIDRVLTVDLHADQIQGFFDIPVDNIYAT PILLNDIKQORIENTLVVSPDGGVVRARAVAKSLNADLAIIDKRRPKANVAEVMNIIGDIQGRCLIVDDMIDTA NTLCKAAVALKERGAERVLAYASHAVFSGEAVSRIASSEIDQVVVTDITPLSEAAKNCDRIRQVTIAGLLAETVRR ISNEESVSYLNFEEVMTGSMLLP
88	0876	MTYEQASVREAQGTGASRRRLREGQIPGILYGEQEPVAIAVDHKTIFYALEKESFHTALIKLSINGETKDVIVR DFQMHPFRREVQHIDFOAVKADQLVIRVPLHIVNAENSQAVKLQGGRVSLNLSVEVVALPANI PAFLDLDCAEV VAGDILHLSDIKLPPEGVESVSLKRNNENLAVATVTGKKR
89	0878	MNTPLPYSDYLIRILTASVYDVAVETPLEPARSLSVRLKNNILKREDLQPVFSFKIRGAYNKMSKLPKDALACGV IAASAGNHAQGVSAQRLGCRAVIMPETTPKIKVDVAVKSHGGEVVLRGVSYNDAVDYAMELAEKEGLTYIAPFD DPDVIAGQGTVMGEIVSQHPDPIRAVFPVPIGGGGLAAGVAAFQVVRPEIKVIGVQTNDSCCMKQSVEAGEIVHLK DVGLFSDGTAVKVVNETFRLCKELDEIITVDTDAVCGAVKIDFDDTRSITEPAGALALAGLKAYIAREGAENQT LIAVTSGANMNFHRLRHVSESELGEGNEGIFAVTIPEERGSFLKFVNILGNRNITEFNRYRGDEKAHIFVGLQA AGPQDLAVIGSRLDEAGLPNVDLTNNEIAKIHIRYMWGGRTDKVENERLVSEFFERPGALARFLNHMQGWNITL FHYRNHGADYGRILVGDVPPHDAADFGLFESLGYSHEETQNAAYKLFLA
90	0884	MEHKLPQLPYELDALSPLHSLKETLEFHYGKHQTYITNLNNQIKGTEFENLPLEEIVKSSGGVFNNAAQTWNHTF YWLGFTSKGQKGPAGELAAIDAKWGSFEKQEAFAFNACAAGTFSGWAWLVKTPAGGLDLVSTSNAAPTLTENTP LLTCDVWEHAYYIDYRNSRPNYLKGFEIVNWDEVAKRFAALS
91	0885	MNDYAAMPSEDREVGALSPLPHSMEAEQSVLGGMLLENPAWDRIADVSGEDFYRHEHRLIFRSIAKLINESRPAD VITVQEDLQRNEELEAAGGFEYLITLAQNTPSAANIRRYAEIVRERSIMRQLAEVGTETIARSAYNPQGRDAGQLLD EAENKVFIQIAESTAKSKQGFLEMPDLLKEVVQRIDMLYSRDNPDDEVTVPTGTFIDLDKKTSGLPQGDLIIVAGRPS MGKTAFSINIAEHVAVEGRLPVAVFSMEMGGAQLVMRLGSGVGRLDQSVLKTGRLEDEHWRLEAVVKLSDAPVY IDETPGLTALELRARARRLARQFNKGLLIVIDYQLMAGSGRSDNRASELGEISRSKLAKELQVPIIALSOLS RTVESRTDKRPMMSDLRESGAIEQDADLIMFYRDEYYNQDSPMKGLAECIIGKHRNGPVGKIFLTWTGQFTKFDN AAYIPPEAKIED
92	0894	MNTLLNQLKPYPFARLREAMQGISAPEGLEAVPLHIGEPKHPTPKVITDALTASLHELEKYPLTAGLPELRQACAN WLKRRYDGLTVADANEILPVLGSRALFSFVQTVLNPVSDGIKPAIVSPNPFYQIYEGATLLGGGEIHFANCPAPS FNPDWRSISEEVWKRTKLVFVCSPPNPSGSLDLGDKWEVFDLQDKYGFIIASDECYSEIYFDGNKPLGCLQAAQ LGRSRQKLLMFTSLSKRSNVPLRSGFVAGDAELLKNFLLYRTYHGSAMSI PVQRASIAAWDDEQHVINDNRRMYQE KFERVIPILQQVFDVKLPDASFYIWLKVPDGDLLALARNLWQKAAIQVLPGRFIARDTEQGNPGEYVRIALVADV ATCVKAAETIVSLYR
93	0920	MTQKSTIVYTHTDEAPALATQSLLPVQAFARHADIVKTSDSLSSGRILAAFFEYLTEAQRVPDALAELGELVKQ

		PDANVIKLPNISASVPQLTAAIKELQSKGFVDPYADPQTDDEKAVRERYDRIKGSAVNPVLRGNSDRRAPKAV KNFAKKNPHSMGAWTKDSKTHVATMQSGDFHNEQSVIVPEATSVSIVFTDKQGNKKELREFVALKAGEIIDATVM SKKALLAFLAEQVKDAKAGVLFSLHMKATMMKVS DPIIFGHAVKVFVAPVFEKFGDKLAAAGVNVNNGFGNLLAN LDKLDADTRTAVEAEIAAVYAANPDAMVDSKGITNLHVPSDVIDASMPAMIRNSGRMWDKNGKAQDTKAVIPD SSYAGVYQATIDFCREHGAFDPTTGTVPNVGLMAQAAEYGSNKTFEIEADGQVQVIDAAGKVLMOHDVEAGDI WRMCQTKDAPVKDWQVLAVNRARLSNTPAVFWLDENRPHDKSLAKVKAYLAELDTNGLDIRVLAPEEAAKFSLGR LKNGEDTISVTGNVLRDYLTDLPFPIELGTSKMLSIVPLMNGGGMFETGAGGSAPKHVQOFLLENHLRWDSLGEF LALAVSFEHLAQKTGNAKAQVLADTLDAATEKLLNDKSPKRKAGELDNRGSHFYLTLYWAQELAAQDKDAELKAA FTPLAAALTADAEAKI VAELSAVQGKAADIGGYAANPEKAAQVMRPSVTFNQALNAL
94	0944	MTTLHFGSGFPRVGAFFRELKFAQEKYWRKEISEQELLAVAKDLREKNWKHQVAANADFVAVGDTFFYDHILDLQVAT GAIPARFGFDSQNLSEQFFQLARGNKDQFAIEMTKWFDNTNYHYLVPEFHADTEFKANAKHYVQQLQEAQALGLKA KPTVVGPLTFLWVGKEKGAVEFDRLSLLPKLLPVYVEILTALVEAGAEWIQIDEPALAVDLPKEWVEAYKDVYATL SKVSAKILLSTYFGSVAEHAALLKALPVDGLHIDLVRAPQLDAFADYDKVLSAGVIDGRNIWRANLNKVLTEVPEP LOAKLGDRLLWISSCSLLHTPFDLSVEEKLKANKPDLYSWLAFTLQKTQELRVLKAALNEGRDSVAEELAASQAAA DSRANSSEIHRADVAKRLADLPANADQRKSPFADRIKQQAOWLNLPLPTTNIGSFPTTEIRQARSFAKKGELSA ADYEAMKKEIALVVEEQEKLDLDVLVHGEAERNMVEYFEGELLSGFAFTQYGVWQSYGSRVCKPPIIFGDVSRPE AMTVAWSTYQSLTKRPMKMLTGPTILQWFSVRNDIPRSTVCKQIALALNDEVLDEKAGIKVIQIDEPAREG LPLKRAWDWAYLNWAGESFRLSSAGCEDSTQIHTMCYSEFNDILPAIAAMDADVITIETSRSDMELLTAFGEFQY PNDIGPGVYDIHSPRVPTAEVEHLLRKAIEVVPVERLWVNPDCGLKTRGWKETLEQLQVMMNVTRKLAELAK
95	0946	MALQDRTGQKVPSSVFRTRVGDVTKDSTDDLFKGGKVVVFSLPGAFTPTCSSHLPRYNELFGAFKENGVDATYC VSVNDTFVMNAWAAEESDNIYIMPDNGEFTEGMGMLVGKEDLGFGRKSWRYSMLVNDGVVEKMFIEPEEPGDPF KVSDADTMLQFVAPDWKAQESVAIFTKPGCQCAKAKALQDKGLSYEEIVLGKDATVTSVRAITGKMTAPQVFIG GKYIGGSEDLAEYLAKN
96	0947	MKKIQADVIVGGTAGMGAFRNARLHSDNVYLIENNVFGTTCARVGCMPKLLIAAAEARHHAHTDPFGVHLDK DSIVVNGEEVMQVRKSERDRFVGFVADVEEWPADKRIMGSAKFIDEHTVQIDEHTQITAKSFVIATGSRPVLPO WQSLGNRLIINDVFSWDTLPKRVAVFGPGVIGLELQALHRLGVKVEIFGLGGIIGGISDPVVSDEANAVFGEEL KLHLDAKTEVKLDADGNVEVHWEQDGEKGVFAEYMLAAVGRRPVNDNIGLENINIEKDARGVPVADPLTMTQSI HIFTAGDASQLPLLEAADQKQIAGDNAGRYPNIGGLRRSTIGVVFTSPQIGFVGLKYAQAQYQADEFVIGE VSFKNQGRSRVMLVNGHMLYAEKATGRFIGAEIVGPAEHLAHLAWAHQMKMTVPQMLDMPFYHPVIEEGLRT ALRDADAKLKA
97	0955	MMDEKLNFSYLFSGSNAPYIEELYEAFLNPDAVDEKWKQYFTDLSKQPGTVADVDAHTPIRESFVTLAKKKIASAV AGGADEAMLKKQVSVLRLISAYRIQGVGAQQLDPLKRIIPRDIEALDPKFHGLSDADMALQFNMGEQDFANRGLP LSQIISNLKQTYCGHIALEYIYPNTEERRWVRNYFESVLSTPHYNADQKRRIKEMTAAETLERYLHTKYVGQR FGVEGESAIAGLNYLIQNAKGDEVEEVIIGMAHRGRNLVNLGKKPGDLFAEFEGRAEIKLPSGDVKYHMGFS SDIATPHGPMHVSLAFNPShLEIVNPVVEGSARAKQKRLGNGRDKVLPVLIHGDSAFI GLGVNQATFNLKTRGY TTGGTVHIVINNIGFTTSDIRDTRSTVHCTDIKMSAPVIHVNGDDPERVCFAIQAALDYRKFKHDKDIVDVC YRKWGHNEGDDPTLTQPMYKKSQHPGARALYTEQLIAEGVVTQAEADGYIQAYRDALDKGEHVEQTTLNSFORT QIDWSKYQKDWREHIEITGLPAADIERLTEKFTAVPEGFALHPTAKRVIEARKAMASGKAIDWGMMAETLAYASLV TKGHGVRISGEDSGRGTFSHRHVLHDQKREKWDGTYVPLRHMGEGMGFEFLVIDSILNEAVMAFEYGFACSA KLTWEAQFQDFANGAQVTIDQFLSSGETKWGRLCGLTTLPHGYDGGQPEHSSARVERWLQCSENNMQVIMPSE ASQMFHLLQRQVLGSYRKPLVIFMSKRLLRFGAMSPLENFTEGSTFRPVIGDTAERASNDSVKRVVLCAGQVYYD LEAGRAERKLEDDVAIVRVEQLYPPFYDEVKAELAKYPAKSVVWAQEEPKNQAFYQIRHRIEDVISEEQKLSYA GRPSSASPAVGYSKXIAQLKQLVEDALAL
98	0956	MIIDVKVPMLESVSEGTLEWKKKVGAEVARDEILIDIETDKVVLEVPSQAGVLVEIVAQDGETVVADQVLARV DTAATAAAEAPAAAPAEAPAAAPAAATQNNAMPAAAKLAAETGVDVNALQSGSRDGRVLKEDVQNAAPAGAAA PAVALPAGARPEERVPMRRLARVAERLLASQENAILTTFNEVNMKPIMDLRKYKEKFEKEHGVKLGFMSSFFVK AAVAALKKYPVNASVDGKDIVYHYFDIGIAIGSPRGLVVPILRDADQMSIADIEQAIVDYAKKAKDGKIAIEDL TGGTFSITNGGTFGSMSTPIINPPQSAILGMHATKERRAVENGQVVRPMMYLALSYDHRIIDGREAVLTVAIK DALEDPARLLDL
99	0959	MNLHEYQAKELLASYGLPVQGGILAHNGEAAAAAYDKLGGKFAVVKQVHAGGRGKAGGVKVKVSREEAKEVAESL IGTNLVTYQTDANGQPVNSVLVCEDMYPVQTELYLGAUVDRSTRITFMASTEAGGVEIEKVAETPEKIFKVTVD LVGLQPCQAREVAFQLGLKDKQINEFVKLMTGAYKAFVENDFALFEVNPLAVRENGALACVDGKIGIDSNALYRLP KIAELRDKSQENERELKASEFDLNYVALEGNIGCMVNGAGLAMATMDIKLKGQPANFLDVGGGATKDRVVEAFK LILEDKSVQGVLINIFGGIVRCMDIAEAI VAAVKEINNVNPPVVRLEGNNALAKILNESGLKLT SADGLNDAE KIVAAVNA
100	0960	MSVLINKDTKVLVQGFTGKNGTFHSEQALAYGTVVGGVTGKGGQTHLNLVPVNTMKEAVKETGADASVIYVPAP FVLDSIVEAVDSGVGLVVVITEGVPTLDMLKAKRYLETNGNTRLVGPNCPGVITPGECKIGIMPGHINTPGRIGI ISRSGLTYEAVAQTTLGLGQSTCIGIGDPIPGMNQIDALKLFQEDPDTDAIMIGEIGGTAEAEAEYIQSNV SKPVVGYIAGVTAPKGRMGHAGAIISGGKGTAEKFAAFEKAGIAYTRSPAELGTTMLEVLKAKGLA

101	0983	MSSIKRALISLSDKTGAVEFAQTLHLKLGVEILSTGGTAKLLADAGVPVIEVADYTGFPPEMLDGRVKTLPKPHGGI LGRRLDDEHVAKMEEHGIGNIDLVCVNLVYFAATIAKPNCITLEDIAENIDIGGPTMVRSAKNWKHVAIVTDADF PAIAAELEANNALSDKTRFNLSRKAFSHTAQYDGMISNYLTSLSDDVLSGTPETIAGFPGRFNQSWIKVQDMRYGE NPHQRAAFYRDIDPAAGSLAAYKQLQKGKELSYNNIADADAWEAVKSFDPVACVIVKHANPCGVAIASNTLDAYKL AYATDTTSAFGGI IAFNREVDGATVKQITDNQFMEVLMAPKFTAEEIAAAKKNVRVLEVPLEAGANRFELKRVG GGLLVQTPDIHRI SRADLKVVSKRQPTQEWNDDLFWVNVAKYVKSNAIVFGKGGQTYGIGAGQMSRVDSTRIAAR KAQDAGLDLNGACAASDAFFPFRDGVVDIAEQGIKAIHPAGSMRDQEVFDDADEHGIAMVVTGIRHFRH
102	0997	MSASQLLSRLTQTVGEKYIITDPAKTEQYRQGYRFGEGKALAVVRPGSILEMWKILQACVEADVIVITQAANTGLT GGSTPDGNDYDRDIVIVNTMRMNIQTINNEQVVCPLPGSTLNQLELLKPLGREPHSVIGSSCIGASVLGGVCNN SGGALVQRGPAYTEMALFAQINEEGRLELVNHLGIDLNTPEEILTNLQGHYQNKDITQDAGKGDHAYCEHVRV VDEPTAARNADPARHYEASGCAGKLMVFAVRLDTFPQEKQTAVFYIGTNDINELTDIRRAALGEFESLPVSGEYI HRHAFDIADVYGKDTFYVIKFGTHQLPKLFDLKVDRFVGKVSFLPKHFSKAMQFVSKFLPDHLPKSMRDYRD KYEHLILKMGKGVDARAFLEKEYFAHHGGAFFECNAEETQAAMLHRAVASAAIRYRAVHDEVEDLVALDIAL RRDDRDWFELPPEIDNKIHKLYYGHFMCHVFHQDYIIKKGNDMALEHEMLHLLDQGAQYPAEHNVGHLYEAK PALKQFYRKLDPNTSNFPGVGKTSKKKNWAE
103	1031	MTKHIAILRGDGIGPEIVAETVRVLDKLIAQGLDAGYEYAPLGGEAYDEYGHYPYEFTQNLCKADAVLLGAVGSP QYDNLDRPLRPERGLLAIRKDLNLFANLRPAVLYPELANASTLKPEIVAGLDILIVRELTDIYFGEPRGIRVLEN GEREGYNTMKYSESEIRRIAHVAFQSAQKRKVCVSGKANVLETTLEWREIFEEIGKEYPDVELSHMYVDNAAMQ LVRAPKQFDVIATGNIFGDILSDEASMLTGSIGMLPSASLDENGKGLYEPHSGSAPDIAGQNKANPLATILSLAML LRYSLNDEARAQQVENAVQKVLQOGLRTSDIYEEGTKLVSCSEMGDAVLAAAL
104	1044	MAAFNTQKVLVSHHWTDAYFTTCTRDESLRFENGQFVMVGLMVDGKPLMRAYSASANWEEHLEFFSIKVQDGPL TSRLQHLKVGDVVLISKKPTGTLVAGDLNPGKHLVLLSTGTGIAPFLSITKDPEIYEQFEKILVHGVRYKKDLAY YDRFTKELPEHEYLGDVKEKLIYPIVSREEFEHGRRLTDLMSVGKLFEDIGLKPKNPQDDRAMLCGSPAMLKDT CKVLDDFGLTVSPKTVRGDYLIERAFVDQ
105	1046	MKYISTRGETAHKPFSEVLLMGLAPDGGLMLPEHYPIQIGRETLDKWRGLAYPELAFEIMRLFVTDI PEDDLRDILN RTYTEAAFGTEKITPVRTLSDGIKIQALSNGPTLAFKDMAMQFLGNAFEYVLNKEGKKNILGATSGDTSAAEYA LRGKKGVNVMFLSPDGKMSAFQRAQMYSLQDENIHNIHAVKGMFDDCQDIVKAVQNDAAFKEKYHIGTVNSINWGRI VAQVYYYFAGYFNATSSNDETVSFCVPSGNFNVCAHIAKQMGPIRRLIVATNENDVLDEFFKTGAYRPNNSAH TYVTSSPSMDISKASNFERFVFDLMDRDPAEINTLWAEVAAGKGFDLRFALDKVGGKYGTSGKSTHADRLATIKQ VYEQDQELIDPHTADGVKVAREVREEGEMVVCLETALAAKFDATIREAVGDAIIPRAALEGLENLPQRVQTVVNS ADAVKGIIEQTLA
106	1053	MKKTVFTCAMIALTGTAQAQELQANEFVHTDLSSISSTRAFLKEKHKAAKHISVRADIPFDANQIRLEAGFG RSKKNINLETDENKLGKTKNVKLPTGVPENRIDLYTYTQTLSDSLNFRVAGLGFESSKDSIKTKHTLHSS RQSWLAKVHADLLSQLNGWYINPWSEVKFDLNSRYKLNTGVTNLKKDINQKTNGWGFGLGANIGKKLGESASIEA GPFYKQRTYKESGEFSVTTKSGDVSLTIPKTSIREYGLRVGIK
107	1070	MTQTNRVII FDTTLRDGEQSPGAAMTKEEKIRVARQLEKLGVDII EAGFAAASPGDFEAVNAIAKTIKSTVCSLS RAIERDIRQAGEAVAPAPKKRIHTFIATSPIHMEYKLMKPKQVIEAAVKAVKIAREYTDDEVFSCEDALRSEIDF LAEICGAVIEAGATTINIPDTVGYSIPYKTEEFRELIAKTPNGGKVVWSAHCHNDLGLAVANSALAKGGARQVE CTVNLGERAGNASVEEIVMALKVRHDLFGLETGIDTTQIVPSSKLVTITGYPVQPNKAVGANAFSHESGIHQD GVLKHRETYEIMSAESVSWATNRLSLGKLSGRNAFKTLADLGI ESESEALNAAFARFELADKKREIFDEDLHA LVSDMGSMNAESYKFISQKISTETGEEPRADIVFSIKGEEKRASATGSGPVDALFKAIESVAQSGAALQIYSVNA VTQGTESQGETSVRLARGNRVNVNGQADTDVLVATAKAYLSALSLEFSAAKPKAQSGTI
108	1073	MIKISTRFDAGSVVVKDLTDPNSIRLALRPDNASDFAQWYFRLQGAAYQNCIMHFENAAEAYPKGWEGYQACAS YDRRNWFRVPTS YENGVLTVNHTPLSNSVYYAYFEPYSEEQHLNLLGDAQSGSLCRIDDLGSTVQGRDINLLTIGN QVESDLKIWITARQHPGETMAEWFIEGLLGRLLDPQDPTARALLDRATFYIVPNMNPDGSALEGNLRTNAAGANLNR EWENPTVEKSPEVFFVREKMLETGVDLFDIHGDEGLPFVVFAGTEGVPNYNPRIAALAEQFKNALLNASPDFQDE YGYEKDAPGEANMTLATNWNVRNFCLAYTLEMPFKDNANLPDDDFGWNGQSRSLRLEAALSAILNVIGDLR
109	1127	MATLSDKTILVTGASQGLGEQVAKAYAAAGATVILVARHQKLEKVDYDAIVEAGYEPFPAICFDLISAEKEFEHF AATIAEATQKGLDGI VHCAGYFALSPLDFQTVAEWNQYRINTVAPMGLTRALFPLLKQSPDASVIFVGESHGET PKAYWGGFGASKAALNYLCKVAADWERFNGLRANVLVPGPINSFQRIKSHPEAKSERKSYGDVLPFVFWWASAE SKGRSGEIVYL
110	1131	MALLQISEPGMSAAPHRRHLAAGIDLGTNSLVATVRSGSAACLPDAEGRVTLPSVVRYLENGGIEVGKTALSAQK TDPLNTVSSAKRLIGRTLADLHONTHLYPYRFGDNQRIELHTRQGVKTPVEVSAAELKTLKSRAEETLGGDLVGV VITVPAYFDDAQROATKDAARLAGLNLVRLNEPTAAAIAYGLDNASEGTFVVYDLGGGTFDVSVLQTLKGLFEVK ATGGNSALGGDDFDHRLFCRLLQNGLSQLNEQDSQLLSLVRAAEQLTTQTEARIQATLSGMAIDTISIRAEF HNLTOHLVMKLTLEPVTQALKDAGVGKNEVKGVIMVGGSTRMLHVQQAATFFGQTPPLNNLNPDEVVALGAAIQANV LAGNKTGDEWLLLDVTPLSLGLEYGGLAEKII PRNSTIPTARAQDFTTFKDGQTAMTIHVVGQERELVADCRSLA KFTLRGIPPMAGAAARIVTFQIDADGLLSVSAQEQTSGVQAQIEVKPSYGLDDDTITQMLKDSMSNAEDMAARA

		RAEAVVEAESLTDAVNAAELESDLLDAEELQQIRQGIADLQGRKDGKAEDIRAAAAKLSITDNFAAKRMNRNI QRALTGQSVNDI
111	1150	MPEYRSKSTHGRNMAGARALWRATGVMETDFGKPIIAVANSFTQFVPGHVHLHNMGQLVAREIEKAGATAKEFNT IAIDDDGIAMGHSGMLYSLPSRDLIADSI EYMVNAHCADALVCISNCDKITPGMLIAAMRLNIPTIFVSGGPMEAGK VIGVANIQPERRLDLIDAMIESADDNVSNRQVEEVEQNACPTCGSCSGMFTANSMNCLTEALGLSLPGNSYLAH AGRKELFLEAGRMIVEITKRYEONDETVPRLPSIATFKAFENAMTMDIAMGGSTNTILHLLAVANEAGVDFKMADI DRLSRVVPICICKTAPNNHDYIMEDVHRAGGIFAILKELDKAGKLHDTVHTIHAPTLKDAIEQWVDVTNPENTRAIER FKAAPGGVRTTQAFSQNRMWKTLDDLREKGCIRDVAHAYSQDGGGLAVLFGNIAERGCVVKTAGVDESILKFTGRAR VFESQEDAVEGILGNQIVAGDIVIIRYEGPKGGPGMQEMLYPTSILKSKGLKACALLTDGRFSGGTSGLSIGHAS PEAAEGGAI GLVHEGDTVEIDI PNRSIHLAISDEELAARRAEMEARGSKAWKPKNRDRVVSALRAYGAMATSADK GAVRDVAQIER
112	1201	MRIVEKAYTFDDVLLVPAHSTVLPDVKLQTKLTREITLNLPLLSAAMDTVTEARLAISMAQEGGIGIIHKNMPPPE MQARAVSKVKRHESGVVKDPVTVPATTILIREVLEMAQRKRKMSGLPVVENGKVVGIVTNRDLRFENRVDLPVSAI MTPRERLTVPEGTSIDEARELMHHTKVERVLVNEKDELKGLITVKDILKTTFEPNANKDSEGRLRVGAAGVTGG DTERVKALVEAGVDVIVVDTAHGHSQGVDRVRWVKETYPHIQVIGGNIATAKAALDLVAAGADAVKVGIGPGSI CTTRIVAGVGPQLTAIHNVAEALKGTGVPLIADGGIRFSGDIAKALAAGAYSVM LGGMFAGTEEAPGEIELYQGR SYKSYRGMGSLGAMSQGSADRYFQDKTDSTDKYVPEGIEGRVVPYKGPVNI IHQLTGGLRSSMGLGCANIAEMHE KAEFVEITSAGMSESHVHDVQITKEAPNYHR
113	1206	MKGDRLVIRELKNLGLLLVTINQYFLHARILKNWGFEEELGEHFFKQSIVEMKAADDLIERILFLEGLPNLQELGK LLIGESTEEIIACDLTKEQEKHEALLAAIATAEAQQDYVSRDLLEKQKDTNEEHIDWLETOQELIGKIGLPNYLQT AAQED
114	1228	MKPVNIGLLGLTVGGGTAALVRDNEAEISRRLGREIRISAVCDLSEKARQTCPSAAFVKDPFELVAREDDVVV ELFGGTGIAKDAVLKAIENGKHIVTANKKLLAEYGNIEFPLAEKQNVIVQFEAAVAGGIP I I KALREGLAANRIKS IAGIINGTSNFI SEMREKGSFAFADVLKEAALGYAEADPTFDIEGNDAGHKITIMSALAFGTPMNFSA CYLEGIS KLDSDRIKYAEELGYRIKLLGITRKTGKIELRVHPTLIPESRLLANVNGVMNAVVRVNDMVGETLYYGAGAGALP TASAVVADIIDIARLVEADTAHRVPHLAFQPAQVQAQTILPMDEITSSYYLRVQAKDEPGTLGQIAALLAQENVSI EALIQKGVIDQTTAEIVILTHSTVEKHIKSAIAAEALDCVEKPITMIRMESLHD
115	1231	MTQKEKHFEYEAALATLPLRDVVVPHMVLPLFVGRPKSIAALENAITREEPVFLLAQTDAAVEEPIAADLYQTGT VAQVLQVLKLPDGTVKVLVEGLYGRVLTIEDTGGLFVSHIETVVEEDTGNDLEAVRRTLLAQFEQYAKLNKKI P AEIIGSINGIAENSRLTDVAAHLQLKLAQRQOILEIPEIGKRMEFLLAQLESELDIMQAEKRIRGRVKRQMEKS QREYYLNEQIKAIHKELGEEDENGELDALEADIKKAGMTKEAEKCLSELKLLKMMPPMSAESTVVRNYIDTLLLEL PWKKKSRSVKDIAKAGLVLDADHYGLEKVKERILEYLA VQKRM DKLGPILCLVGPVGKTSLGESIAKATGRKY VRMALGGVRDESEIRGHRRTYIGSMPGKILQNMAGVKNPLFLLEIDKLGNDFRGDPASALLEVLDPQNNKFA DHYAEVDYDLSVDMFIATSNLSNIPTLLDRMEIIRLSGYTEDEKINIAMQYLVPKQMKRNGVKEGELAIEESAVR DIIRYTTREAGVRSLDREIAKICRKVVMQITLDEDKKRLSETKKTSAKPKAVKVNKNLHDYLVRRFDYGVAES ENRIGQVTGLAWTEVGGEELLTVEAAALPGKGVICQTGQLGDMKESVSAAWSVVRSAESVGLAPDFYEKKDIHIH VPEGATPKDGPSAGIAMTLAAVSFTKIPVRADVMTGEITLRGEVLP I GGLKEKLLAALRGGIKHVLI PKDNVKD LEEIPENVKTGLTIHPVKWIDEVLALGLESQPEPWAEPSEGAEEAAESASKPKPRSRATKH
116	1240	MISTNGITMQFGAKPLFENVSVKFEGENRYGLIGANGSGKSTFMKILGGDLEQTAGEVAIENGVR LGKLRQDQFAY EDMRVLDVMMGHTEMWAAMTERDAIYANPEATEDDYMKAAELEAKFAEYDGYTAEARAAELLSGVGISED LHNK MAEVAPGFKLRLVLLAALFSKPDVLLDEPTNNLDINTIRWLEGVLNQYDSTMI IISHDRHFLNEVCTHMADLDYN TTTTYPGNYDDYMLASAQSRERALKDNAKAKEKLQELQEFVARFSANKSKARQATSR LKQADKIKSEMVEVKPSTR QNPYIRFEADEKAKLHRQAVEVEKLAKRFETQLFKNLNFILEAGQRLAIIGPNAGKSTLLKLLAGAYNPEYSDGL LPDEGTIKWAEKASVGYYPQDHENDFDVMDLSEWMRQWQEGDDEQVIRGTLGRLLFGSNDVVKVKSGLSGGEKG RMLYGKLLLLKPNVLVMDPTNHMDMESIESLNMALEKYNGTLIFVSHDRQFVSSLATQI IELDGKGGYEHYLG DY ESYLEKKGVA
117	1252	MSTLSYRDAGVDIDAGDQLVENIKPFAKRTMRPEVLGDLGGFGALVEIGKKYQNPVLVSGTDGVTGKLKLAFDWD KHDTVGIDL VAMSVNDILVQGAEPFLFDYFACGLDVP R ATDV IKGIAQGCESG CALIGGETAEMPGMPVGEY DLAGFAVGVEKENVITGRSIGVDVVLGLASNGAHSNGYSLIRKIIERDNPDLDAEFDNGKTLREAVIAPTRLYV KPI LAALEKFTIKGMAHITGGGITENVPRVLPENTVAQIDAKSWELPKLFQWLQKAGNVETQEMYRTFNCGIGMVV IVAAEDADAVQGLLGEQGETVYRLGLIRERQGEHQTVQA
118	1301	MSMENFAQLLEESFTLQEMNPGEVITAEVVAIDQNFVTVNAGLKSESLIDVAEFKNAQGEIEVKVGDFVTVTIESV ENGFGETKLSREKAKRAADWIALEAMENGDI LSGIINGKVKGGLTVMISSIRAFPLGSLVDVRPVKDTSHFEGKE IEFKVILDKKRN NVVSRRAVLEATLGEERKALLENLQEGSVIKIVKNITDYGA FVDLGGIDGLLHITDLAWRR VKHPSEVLEVGQVEAKVLKFDQEKQVSLGMKQLGEDPWSGLTRRYPQGTRLFQKVSNLTDYGA FVEIEQEGIEGL VHVSEMDWTNKNVHPSKVVQLGDEVEVMILEIDEGRRRISLGMKQCOANPWEFAANHNKGDKISGAVKSIDTDFGV FVGLPGGIDGLVHLSDSLWTESGEEAVRKYKKEEVEAVVLADVEKERISLGIKQLEGDPFGNFISVNDKGSVLK GSVKSVDAKGAVIALSDEVEGYLPASEFAADRVEDITTKLKEGDEVEAVIVTVDRKNRSIKLSVKAKDAKESREAL NSVNAAANANAGTSLGDLKAKLSGEQE

119	1302	MTKSELMVRLAEVFAAKNGTHLLAKDVEYSVKVLVDTMTRSLARGQRIEIRGFGSFDLNHRPARIGRNPKTGERVE VPEKHVPHFKPGKELRERVDLALKENAN
120	1313	MMSVTVETLENLERKVVLSLPWSEINAETDKKLKQTRRAKIDGFRPGKAPLKMAIQMYGASAQNDVINELVQRRF YDVAVAQELKVAGFPRFEGVEEQDDKESFKVAAI FEVFPEVVIGDLSAQEVEKVTASVGDAEVDQTVELLRKQRT FNHVEREARNRDRV I DFEGKIDGEPFAGGASKNYAFVLGASQMLPEFEAGVVGMAKAGESKDVTVNFPEDYHGKDV AGKTAVFTITLNNVSEATLPEVDADFAKALGIADGDVAKMREEVQKNVSREVERRVNEQT KESVMNALLKAVELKA PVALVNEEAARLANEMKQNFVNQGMADAANLDDLDMFKEQAERRVSLGLILAKLVDEKNLEPTTEEQIKAVVANFA ESYEDPQEVIDWYYADPSRLQAPTS LAVESNVVDFVLGKAKVNEKALS FDEVMGQA
121	1320	MQIILLEKIGGLNGLDIVTVKNGYARNFLI PAGKAKRATEANMKEFEARRAELEAKQAEILADARVRQEKLDGQT VTVAQKAGVDGRLFGSVTNADIAAAI VAAGIEAVKANVRLPNGPLKAVGEYEVEVALHTDAVAKITVAVVAATE
122	1323	MRHYEIVFIVHPDQSEQVPAMVERKYTMIAEANGKIHRLEDWGRRQLAYPINKIHKAHYVLMNIETTPEVVEELET AFRFNDAILRHLTIKTKHAVTEASPMLGGEKAKNLLSGASEEAVAQ
123	1324	MSQHRKLIILGSGPAGYTAAYVAARANLPV IITGIAQGGQLMTTTEVDNWPADADGVQGPPELMARFLAHAERFGT E I IFDQINAVDLQKRPFTLKGDMGEYTC DALIVATGASAKYLGLPSEEFAGKGVSAACATCDGFFYKNQDVAVVGG GNTAVEEALYLANIAKTVTLIHRRSEFRAEKIMIDKLMKRVEEGKIILKLESNLQEVLDGDRGVNGALLKNNDGSE QQIAVSGIFIAIGHKPNTDIFKGQLEMDEAGYLKTKGGTADNVGATNIEGVWAAGDVKDHTYRQAITSASGCQAA LDAERWLGSONI
124	1328	MTDTAENQTQNNWQAGHPRSIRS FVLRSHTAAQQRADITLWDSFGIDYQATPADLDARFGSSRPKILEIGFGMG TATAEIAARRLPETDFLAI DVHGPVGNNLLKIDENHLENIRVMRHDAVEVENMLQDGSGLDGIHIFFPDPWHKKRH HKRRLIQAPPIAKLLPKLKTGGYIHLATDWEYAQOMLEVLSSFDSLQNTAADYAPTDPYRPETKFEARGKRLGHG VWDLVFKRIG
125	1339	MKASQFFISTLKEAPAEALASHKLMIRAGLIKANASGLYTWMPLRVLRKVENVREEMARAGSVELLMPVVQP AELWQESGRWEFYKELLRLKDRHRDFCMGPTCEEVIADI VRKEINSYKQLPKNFYHIQTKFRDEVPRFPGVMRA REFVMKDAYSFHADYASLQTTYQDMYDAYCRI FTRLGLAFRPAADTGSIGGTSHEFQVLAESGEDVIAYS DTS YAANIELAPTLPLKGERAAAQAEVLKVHTPNVKTIDSLVDFLSIPIEKLKSI VVEGENEGELILLLLRGDHEFND IKAEKLAGVKSPLTMASPAIVEQFGANGSLGPVGFAGKVYADFATEKGADWVIGANEDDYHYTG FNFGRAAAEP EFVDLRNVVEGDESPDGQGRKLKLAGIEVGHVFLQDRDKYTQAMNVSFLDNNGKSQIMEMGCYIGITRVVAAAIEQ NNDEKGI IWKAMAPFEVVIVPMNYKSDTVREAADKIYAELLAAGADVLLDDRDERAGVLLNDSELLGIPHRIVI GDRALKEGNVEYAERRDNEAQA VAIGEIVARVTASLNA
126	1341	MSQQLHDVDPIETQEWLDALSSVLEYEGGERAQYLLENLVKYCRDKGVRMPHGTTTPYLNTSVS VENEKGI PGDQNI EHRIRAFVRWNAAI VLRAGKKDLELGGHISFQSAATMYE VGFNFHFKAKGEGEGDLVFFQGHVAPGIYARAFV EGRLTEDQLNNFRQEV DGHGLPSYPHLLPDFWQFP TVSMGLGPIMAIYQARFLKYLESRGLAKTKGRKVCFCG DGEMDEPESQGAIALAAREGLDNLI FVINCNLQRLDGPVRGNGKIIQELEGNFAGAGWNVVKVIWGRRWDRLAKD KDGILLRQRMEECLDGYQTYKSKDGAYVREHFFNTPELKVADMTDEQLWALNRGGHDPQKVYNAYDRAANHADG KPTVILAKTIKGYMGASGEGQNVAHQAKMDKASLKQFRDRFDI PVTDEQIESGDLPYLTFAPDTEEYKYLHARR DALGGYLPQRKPTQEVLEVPESAFDAQLKSSGEREFSTTMAFVRILSTLLKDKKIGKRVPVIVPDESRTFGMEGM FRQYGIWNPKGQYTPQDKDQLMFYKESVDGQILQEGINEPGAMADWIAAATS YANSNFAMIPFYIYSMEFGFORI GDLAWAAGDMHARGFLGAGTAGRTTLNGLQHEGDHSHIQADLIPNCVSYDPTFQYEVAVIVQDGLRRMYANNED VFFYITLMNENYTHPDMPEGAEQDILKGMYLKAGGKDKVQQLMGSGTILQEVITAGAEILLKADFGVEADIWSCPS FNLHLDRAVEVERFNRLHPLAEKVPFVTSQLQGHDPVIAATDYIRSYADRI RAYIPNDYHVLGTDGFGGRSDSRA NLRRFEVDRYNVAVAALAAALAEQGVSKETVQQAIEKYGIKADSAPSWKR
127	1342	MSIVEIKVPDIGGHENVDII AVEVKAGDTIAVDDTLITLETDKATMDVPADAAGVVKEVKVKGDKISEGGVILTV ETGAAAAEAPAAAEAPAPAAAPAAAGGATVQVAVPDIGGHTD VDVIAVEIKVGDVVAEDDTLITLETDKATMDV PCTAAGVVKAVFLKVGDKVSEGS AIEVETVGSAAAAPAAQAAAPAAAPPTAAAAPAAAPAPSAPAAAKIDEA AFAKAHAGPSARKLARELGVDLGQVKGTGLKGRIMGDDIKAFVKSVMQGGAAPAAASASLGGGLDLLPWPVKVDFS KFGNVEVKELSRIKKISGQNL SRNWVVI PHVTVHEEADMTLEEFRKQNLKEWEREGVKLSPLAFI IKASVSALKA FPEFNASLDGDNLV LKNYFNIGFAADTPNGLVVPVIKDQVQGLKQISQELTEL SKKAREGKLKPQEMQACFTIS SLGGIGGTGFTPIVNAPEVA I LGVCKSQIKPVWNGKEFAPRLMCP LSLSFDRHVIDGAAGMRFTVFLAKLLKDFRR ITL
128	1343	MGNFLYRGISCCQDEQNNGQLKPKGNKAEVAIRYD GKFYD G KATHGPSVKNAVYAHQIETGLYDGCYISTTTDK IAKKFATSSGIENGYIYVLRNDFLFGQYSIF EYEVEHPENPNEKEVTIRAEDCGCIP EEVITIAKELTEIN
129	1344	MALVELKVPDIGGHENVDII AVEVNVGDTIAVDDTLITLETDKATMDVPAEVAGVVKEVKVKGDKISEGGLIVV EAEGTAAAPKAEAAAAPAEAPKAAAPAPQAAQFGGSADA EYDVVVLGGGPGGYSAAFAADEGLKVAIVERYKTL GGVCLNVGCI PSKALLHNAVIDEVRHLAANGIKYPELIDMLRAYKDGVSRLTGGLAGMAKSRKVDV IQGDG QFLDPHHLVSLTAGDAYEQAAPTGEKKIVAFKNCIIAAGSRVTKLFPFIPEDPRIIDSSGALALKEVPKLLIIGG GIIGLEMGTVYSTLGSRLDVEMMDGLMQADRDLVKVWQKQNEYRFDNMVNTKTVAVEPKEDGVYVTFEGANAP KEPQRYDAVLVAAGRPNGLISAEKAGVAVTDRGFIEVDKQMRNTVPHIYAIGDIVQPM LAHKAVHEGHVAAEN CAGHKAYFDARVIPGVAYTSPEVAWVGETELSAKASGRKITKANFPWAASGRAIANGCDNGFTKLI FDAETGRIIG

		GGIVGPNGGDMIGEVC LAIEMGCCAADIGKTIHPHTLGESIGMAAEVALGTCTDLPPQKKK
130	1347	MNPF LN TAFKAARRAGOMMIRAAGNLDAVKTD SKAFNDFVSDVDRNSEIILVEALKEAYPHHKITCEESGSHGKAA AEYEWIIDPLDGTN FLHGHPQYAI SMALLHKGVLQEALVYAPERNDVYMASRGKALLNDRRIRVSNRIELNRCL IGTFGPVVDQSMMDKYLAILKD FLAKTAGGRREGAASLDLCAVATGRFDGFFEFNLKPWDIAAGALIVQEAGGIVT DMSGEDGWLESGDIVAANPKVLAQMLKII SAHV
131	1356	MTQYTLKQASVLLQSKQISAVELASAYLAAIAEKNPALNGYITIDQDKTLAEARAADERIAQGNASALTGVPVAYK DIFCQTGWSRACASKMLDNFISPYTATVVQNL LDEGMVTLGRTNMDEFAMGSTNENSFYGAAKNPWNLEHVPGGSS GGSAAVVAARLAPAALGSDTGGSI RQPASHCGITGIKPTYGTVSRFGMVAYASSFDQTGPMAQTAEDCAILLNAMA GFDPKDSTSLEREKEDYTRDLNQPLKGLKIGLPKEYFGE GNSADVLTALQNTIDLLKAQGAELIEVSLPQTKLSIP AYYV LASAEASTNLSRYDGVR YGHRAAQFADLEEMYGKTRAEGFGSEVKRRIMIGTYVLSHGYYDAYYLKAQKLRR LVADD FQTAFARCDLILAPTAPTAA PKIGADASP VETYLSDIYTI AVNLAGLPALTLPAGFSGGGLPVGVLVGN Y FAEAKILGAHQIQLNSDWHGKRPE
132	1358	MTWETVIGLEI HVQLNTSKIFSGASTAFGAEPNAHASVVECALPGVLPVMNREVVEKAIKGLALDAKINQKNVF DRKNYFY PDL PKGYQISQLDLPIVEHGKLEIVVGDDVKTINVTTRAHMEEDAGKSVHEGLNGATGIDLNRAGT PLE VVEPEMRSAAEA VAYAKALHSLVTWLDICDGNMAEGSFRVDANVSVRPGQEEFGTRREIKNLNSFRFLEQA INY EAEAQIEILEDGGKVQOATMLFDPEKGETRVMRLKEDAHDYRYFPDPLLPV IISDAQMQAKAEMPELPKEMAAR FVADYGVSEYDARLLTASRAQAAYFEAAKESGQGLTANWMNGELAAALNKEGME LADSPITAPRLAALVGKIAD GTLSSKLAKKAFEAMWAEPEATIAEII EKHLQOMTDTGEI EAMVDEVLANNAKAVEQKSGNEKALNAIVGQVMK ASKKANPAQVQELIKAKLA
133	1372	MSNENRTCSFCGKSKSHVKHLIEGENAFICDECVSNCIEILHEDGNDGTPSESAGGEPEESGKLPTPAEIVANLND HVIGQEQA KALAVSVYNHYKRLRHPKAGANVELSKSNILLIGPTGSGKTL LAQSLARKLDVPFVMADATTLTEAG YVGEDVEQIITKL LGKCD FVEKAQRGIVYIDEIDKISRKSDNPSITRDVSGEGVQOALLKLEGTVASVPPQGG R KHFNQEFINVDTTN ILFICGGA FGLEKVIRQRTKGGIGFGASVH SKDENADITKLF GIVEPEDLIKFG LIP ELI GRLPVIATLEELDEDALINILTEPKNALVKQYQALFGMENVELEFE EGALRSIARQAMERKTGARGLSIVERCLL DTMYRLPDLKGLKKVVVGKAVIEEGREP ELVFES
134	1379	MTVKT PVYLDYAATPPVDKRAEKMI PYLTETFGNPASNSHSFGWEAEAEVEKARADIAALINADSK EIVFTSGAT ESNNLAIKGA AHFYKSGKNHLITV KTEHKAVLDTMRELERQGYEVTYLDVQENGLVDLDVLKAAIREDTILVSVMW VNNEIGVVQDIPAI GEICRERKII FHVDAQAQCGKVPVDVEAAKV DLSMSGHKVYGPKGIGALYVRRKPRVRLEA QMHGGGHERGFRSGTLPTHQIVGMGEAFRIAKEELAQDTAHLKLRDIFLKGIEGIEEVYINGDLEHRVPNNLNV S FNFVEGESLIMAVKELAVSSGACTSASLEPSYVLRALGRNDELAHSSLRITFGRM TTEEEVQFAELIKSKIGKL RELSPLWEMFKDGI DLNSIEWAAH
135	1390	MSSTPNKQAGYPRLVADIGGTNARFALETAPRVIEKAAVLPCKDYDTVTD A VRAYLNQSGATAVRHAAFAIANPIL GDWVQMTNHHWAFS IETTRQTLGLD TLILNDFTAQALAVTQTSSKDLMOVG GQKPVFEAPKAVIGPGTGLGVSGL VHSHAGWVALAGEGHTSFPFDDMEVLIWQYAKNKYGHVSAERFLSGAGLSLVYEALAAKQAKPAKLPMPSEITE KALSGASPLCRQTLDFCAMLGTVASNLALT LGARGGVYLCGGIIPRVLEYFKTS PFRSRFENKGRFEAYLAAIPV YVVLSEFPGISGAAAALDNHLRN V
136	1392	MSTQTNFDLVLF GATGDLAMRKL LCLYQAHVAGLHLHEGRILGVSRSELDT EGFLAKVETSSKIHVKENFSDEAW ASFVERFAYLKVDVTQPD DFAALGD LVKARKETDNVVIYLS TAPKFFAQACENLAAIGLNADNRVVL EKPLGTDL ASSQOINTDVARYFKEGQIYRIDHYLGKESLQNL LALRFANVMFEPLWNNKYIESVOLTIAEQLGVEERGEFYDIT GALRDMVQNHLMO LCMTAMEAPASLDADAVRDEKVKV IKS LKPLTVESVNNENVVRGQYTAARGMNGYLEINVPQ DSFTETYVAIKAEIENERWKGV PFLRTGKRMAGKVAEIVLNFKDLNSHIFEGSRTAPNRLVIELQPYESVRLYTQ MKTPGAGNKVETVPLATDLGKALEGRRAEAYERLLLDVINGKLALFNRRDELEAAWEYVMPILENWTNNTTPPHGY GAHSWGPEAARELLARDGHKWHEEQ
137	1425	MSEQNHPQTEPQLDENQII ALRREKLHNI RQQRNAYPNDFKRDSFAADLHAQYGEIGKEELD PQGIPVKVAGRMML KRQMGKASFATIQDVSGQIQLYLNNKGVSQEVLD DFNHWDLGDIVGAEGTLFKTNHGELTVRVSGIRLLSKSLRPL PDKHKGLSDQETKYRQRYVDLIANEESRNTFIKRSQIIQSVRNFMVGEHYLEVETPMMHPIPGGATAKPFVTHNA LDIPLYLRIAP ELYL KRLVVGGLERVFEINRSFRNEGMSVRHNPEFTMIEFYEA FSDYERMMQMAEDIIRNASRTV NGTANITYNGKEVDLES PFERLTILEAIKKYNPHYTDEQLNDAEWLKEIVKHGESLPPSPGIGSLQALFEGCAE GKLWNPTFIVDYPVEVSP LARASDTKQGLTERFELFVVGRELANGYSELNDPEDQAERFKAQVVQKDAGDDEAMHY DADYIRAMEFGLPPTGGCGIGIDRLVMLLTDSQTIRDVILFPQMRPE
138	1429	MRKKL TALVLSALPLAAVADVSLYGEIKAGVEGRNYQLQLTEAQAANGGASGQVKVTVKAKSRIRTKISDFGSF IGFKGSEDLGDGLKAVWQLEQDVSVAGGGATQWGNRESFIGLAGEFGLRAGRANQFDDASQAIDPWSNNDVAS QLGIFKRHDDMPVSVRYDSPEFSGSGSVQFVPIQNSKSAYTPAYYTKNTNNNLTLVPAVVGKPGSDVYAGLNYK NGGFAGNYAFKYARHANVGRNAFELFLIGSGSDQAKGT DPLKNHQVHRLTGGYEEGGLNLALAAQLD LSENGDKTK NSTTEIAATASYRFGNAVPRISYAHGFDFIERGKKGENTS YDQIIAGVDYDFSKRTSAIVSGAWLKRNTGIGNYTQ INAASVGLRHKF
139	1445	MSDDKSKALAAALAQIEKSFKGAIMKMDGSQOEEENLEVI STGSLGLDLALGVGGLPRGRIVEIFGP ESSGKTTLC LEAVAQCQKNGGVC AFVDAEHA FDPVYARKLVKVEELYLSQPD TGEQALEICDTLVRSGGIDMVVVD SVAALVPK



		AEIEGDMGDSHVGLQARLMSQALRKLTGHIKKTNTLVVFNIQIRMKIGVMFGSPETTTGGNALKFYSSVRLDIRRT GSIKKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYEGISWEGELIDIGVKNDIINKSGAWSYNGAKIGQGKDN VRVWLKENPEVANEIDAKIRALNGVEMHITEGTQDETGERPEE
140	1452	MQNIFDPLVIRGKSLTPIVQGGMGVGVSAASGLSSAVARENGIGTASVDLRHLHEDLLAESQINPSEEKYTSLNCT ALDREIQAKASASEGGLIIVNVMAVKDHAAYVRQACESGADAVVMGAGLPLDLPETEGYHKDVALLPILSESR GINIVLKRWMKKGILPDAIVVEHPAHAAGHLGASTVEGVNDAKFDFKRVIEETFEVFKSLGLESEKIPILLAGGMA NFEKVKTALKNWGASAVQIGTAFVTEEGDAHLNFKKTLAGAETEKVVEFMSVAGLPARGVRTKFLDSYIKRESKL QTNADAPRRCTQGLNCLTSCGLRDGLSKAGQFCIDIQLAAAFRGEVDKGLFFRGKDRCPSPAPSARRYNIC
141	1457	MSQLANAI RFLSADAVQKANS GHGPGAPMGMAEMAETLWTKFLNHN PANPKFYNRDRFVLSNGHASMLLYSLLHLTG YNLSIEDLNFRQLHSTKPGHPEYGYTGDVETTTGPLGQGIANAVGMALAEKILAAEFNKDGLNIVDHYTYVFMGD GCLMEGVSHACSLAGTLGLGLKLVLYDDNNISIDGKVDGWFTENIPORFESYGWHVVPNVNGHDTAAIQAIEAA RAETGKPSIICCKTLIGKGSANKEGSHKTHGAPLGADEIEATRKH LGWTPAFEIPOEIIDAWNAKEQGAKEADW NELFAQYQAKYPAEAAEFVRRMDKKLPDNFDEYVQAALKEVCAKAEIATRKAQNSIEILAKELPELVGGSADLT PSNLTWNSNSVSTRDKGNYIHYGVREFGMGAIMNGLVLHGGVKPFGATFLMFSEYERNALRMAALMKINPVFVF THDSIGLGEDGPTHQPIEQTATLRLIPNMDVWRPCDTAESLVAWAEAVKAADHPSCLI FSRQNLKFQARSEQQLND IKRGGYVISEAQGNAQAVIIATGSEVELALEAQKALAAQNI AVRVVSMPTNVFDRQDAAYQAAVLPEGLPRIAVE AGHADGWYKVGNGAVVGINRFGESAPADLLFKAFFGFTVDNVVDTVKSVL
142	1471	MSKKRVLTGVTTFGIPLHNGYVGAI RPAVRAAQNLDTESFLFLADYHGIKCHEPEMIHQSTQAAVATWLACGLDP ERTTFYRQSDTPEVMELNWI LTCITAKGLMNAHAYKAAVQANAENGQEDPDGFMGLFSYPI LMTADILMFNAN EVPVGRDQIQHVEMARDIAGRFNHRFRELFTLPEVKIDENVELLVGLDGRKMSKSYGNTIPLWENDKKTQKSVNKI ITNMKEPGEKQPDSEPLFEIYKAFSTPSETVEFTKMLADGLAWGEAKKLLAAKINAELAEPRERYNELTADPSQI EELQAGAAKARKEARELLDKVRDAVGIRPLK
143	1472	MRYDKLTAKFQQAALAEQSLALAADGSYLEAGFVLKALLDDQNSGAAALLAHAGVNVQVQKRLQOHLNSLPKVS QGGDILPSRELQAVLNMDKAATKRSDAYIASELFLALVQONDATGKILKEAGATEQNINAAIDAVRGQNVNDA NAEDQRDALKKYTLDTQRARDGKLDPVIGRDEIRRAIQVLQRRTKNNPVLIGEPGVGKTAIVEGLAQIRVNGEV PESLRNKRLLVLDLALAIAGAKYRGEFEERLKGVLNDLAKDDGNTLIFIDEIHTLVGAGKTGDAMDAGNMLKPALA RGELHCIGATTLEDEYRQYIEKDAALERRFQKVLVGEPSVEDTIALRLGLQERYEIIHHGIDITDPAIVAAELSDRY ITDRFLPKAIDLIDEAASRVKMEKETKPEAMDKIDRRLIQLRMEKAHVEKEKDDASKRLELIDEINGLQKEYA DLDEIWKAEKAISDGAANIKKQIDEVKIKIEQAKRQGDALASKLMEYEDLEHLEKQRAAAERADTSTKPANKLLR NNVGAEEIAEVVSRMTGIPVSKMEGERDKLLKMEVLRHVVVGQDEAVRAVSDAIRRSRGLADPNKPYGSFLFL GPTGVGKTELKALAGFLFDSEDHLIRIDMSEYMEKHAVARLIGAPPYGVGYEEGGYL TEQVRKPYSVILLDEVE KAHPDVFNILLQVLDDGRLTDGQGRVDFKNTVIVMTSNIGSQHIQQMGIDYEAKEVVMEDVKEHFRPEMINRI DEVVVFHGLDQDNIRNIAKIQKGLKLEKQNLRLAVSDAALDIIAKAGFDPYIGARPLKRAIQSEIENPLAKAL LAGNYAPESEIRVEADGDRLKFA
144	1506	MNLHQTVHEHAAAFAAGIADSPIVLQPTKNAEHGDFQINGVMGAACKAKQNPRELQKVAEALADNAVIESAEV AGPGFINLRRLRPEFLAQNIQTALNDARFVAKTDKQPQTVVIDYSSPNLAKEMHVHGLRSSIIGDSISRVLAFMGNT VIRQNHVGDWGTQFGMLVAYLVEQQKDNAAFELADLEQFYRAAKVRFDEDPAFADTAREYVVKLQGGDETVLALWK QFVDISLSHAQAVYDYLGLKLRPEDVAGESKYNDLQPVVDDLQVKG LAVEDDGAKVFLDEFKNKEGEPAAFIVQ KQGGGFLYASTDLACLRYRIGRLKADRLLYVVDHRQALHFEQLFTTSRKAGYLPENVGAAFIGFTMMGKDGKPFK TRSGDTVKLVLDL TEAVERATALVKEKNPELGADEAAKIGKTVGIGAVKYADLSKNRTSDYVFDWDAMLSFEGNTA PYLQYAYTRVQSVFRKAGEWDANAPTVLTEPLEKQLAAELKFEDEVLSQVADTAYPHYLAAYLQIATLFSRFYEA CPILKAEGASRNSRLQLAKLTGDTLKQGLDLLGIDVLDM
145	1518	MSQKLILVLNCGSSSLKGAVALDNGSGEVL LSCLAELNLPDAYITFKVNGEKHKVDLSAHPDHTGAVEALMEELKA HGLDSRIGAIGHRVVSGGELYSE SILVDDEVIAIGIEKCIPLAPLHNPALHLLGLRAAQSI FKGLPNVVVDTSFHQT MPEVAYKYAVPQELYEKYGLRRYGAGHTSYRFVADETARFLGKDKDLRMVIAHLNGASITAVANGESRDTSMGL TPLEGLVMGTRSGDIDPSVFGFLAENANMTIAQITEMLNKKSGLLGI SGLSNDCRTIEEEAAKGHKGAKLALDMFI YRLAKYIGSMVAAGGLDALVFTGGIGENS DIIRERVIGYLGFLGLNIDQEANLKARFGNAGVITTADSKAVAVVI PTNEELMIAHDTARLSGL
146	1533	MKAYLALISAAVIGLAACSQEPAPAPAAEATPAAEAPASEAPAAEAPADAAEAPAGNCAATVESNDNMQFNTKDI QVSKACKEFTITLKHTGTQPKASMGHNLVIAKAEDMDGVFKDGVGAADTDYVKPDDARVVAHTKLIGGGEASLTL DPAKLADGEYKFACTFPGHGALMNGKVTLDV
147	1536	MLTNI AKKIFGSRNDRLLKQYRKSVARINALEEQM QALSADLQAKTAEFKQRLADGQTL DGLPEFAVCREASR RTLGMHRFDVQLIGGMVLHDGKIAEMRTGEGKTLVATLAVYLNALAGKGVHVTVNDYLSRDAGIMEPLYNFLGL TVGVII SDMQPFRQNAAYADITYGTNNEFGFDYLRDNMVTDQYDKVQRELNFVAVVEVDSILIDEARTPLIISGO ADDNIQLYQIMNTVPPHLVRQETEEGEGDYVDEKAHQVILSEAGHEHAEQILTQMGLLAENDSLYSAANIALMH LMAALRAHSLFHKQHYVIQDGEIIVDEFTGR LMSGRRWSEGLHQAVEAKEGVEIKRENQTLASITFQNYFRLYT KLSGMTGTADTEAEFFQSIYNLETVIIPNRPVQRKDFNDQIFRSAEKFEAVVKDIEECHKRGPVLVGTTSIEN SELVSKLLTOAGLPHNVNLAKHEREALIVAQAGKGAITVATNMAGRGTDIVLGGNLKHQTDARADETLDSEK QAQIAALEDGWQAEHDKVMEAGGLHIIGTERHESRRIDNQLRGRSGRQD PGSSRFYLSFEDPLRLFALDRAAI

		LNRLAPERGVIAIEHNLLTRQIEGAQRKVEGRNFMRRQVLEYDDVANEQRKVIYSQRNEILTSKDISDLMQEIERSD VVSDLVDTYMPDPSMEEQWDIPTLENRLAAEFRLHEDIQSWLKADNAIDGQDIKERLIERIENEYAAKTELVGKQA MADFERNVMLQVIDNQWREHLAAMDYLROGIHLRSYAQKNPKQEKREAFMTFQDLWNGIKFHIASLLTSVQIEQN PVAVVEEQPIGNIQSIHSESPDMEELLGQSQTDLVTEAFNPDGTDFSPEALEARGQIVHRNDPCPCGSGLYKQCH GKLA
148	1560	MLNKDQFADNHFI RTIIEEDLES GKHTAVQTRFPPEPNGLYHIGHAKSICLNFLGLAYIYDGLCNLRFDDTNPEKEN DEYVNAIKEDVEWLGFWHAGEPRFASNYFDQLYDYAVGLIKDGKAYVDDLTPPEMREYRGLTEAGKNSPYRDRSV EENLDLFTRMKNGEFPDGSKTLRLKIDMASGNINMRDPVIYRIRRAHHNTGDKWCYIPMYDYTHCISDAIEGITH SLCTLEFEAHRPLYDCVLDNI PAPHATRPRQYEF SRLELLYTTITSKRKLNLQLVVEKHVSQWDDPRMPTISGMRRRG YTPEGLRLFAKRAGISKENIVDMSVLEGAIREELNSAPRLMAVLNPLKVTLTNFETGRGTSRRAAFHPNHEEMG EREVPI SQTIIYEADDAENPPKGFKRLIPGGEVRLRHGYVIKCDEVVKDEAGNVVELKCSIDHDTLGKNPEGRKV KGVIIHWVSAEHAAEIKVRLYDRLFTVERPDVVRGEDGEYLPFTDFLNPESVKEITAYAEPAAKDLPAESRWQFERI GYFVTDRKDHGKDTPVFNRTVTLKDSWQPK
149	1572	MLEAYRKAARAALGIPALPLNAQQADLVELLKSPPAGEGEFLVELLAHRVPPGVDDAAKVKASFLAAVAEGSA SSPLISPEYATELLGTM LGGYN IHALIELLDDDKLASIAAKGLKHTLLMFDSFHDVQEKAEKGNKYAQEVLQSWAD AEWFASRAKVPEKITVTVFKVDGETNTDDLSPAPDAWSRPDIPLHALAMLKNPRDGITPDKPGEVGP I K LLEELKA KGHPVAVYGDVVG TGSSRSK SATNSVIWHTGEDI PFVPNKRFGGVCLGGKI API FNTQEDSGALPIEVDVSALKMG DVVDILPYEGKIVKNGETVAEFELKSQVLLDEVQAGGRINLIIGRGLTAKAREALKLPASTAFRLPOAPAESKAGF TLAQKMWGRACGLPEGQGVPRGT YCEPRMTTVGSQDTTGPMTRDELKDLACLGSADMMVMSQFCHTAAYPKPV DVK THKELPAFISTRGGVSLRPGDGVHSLNRLLPDVTGTGGDSHTRFPIGISFPAGSGLVAFAAATGVMLDMPES VLVRFSGLQPGVTLRDLVNAIPLYAIKQGLLTVAKAGKKNIFSGRIEIEGLPDLKVEQAFELTDASAERSAAGC TVKLNKEPIIEYMKSNVVLKMNMIANGYQDPRTLERRIKAMEKWLANPELLEADKDAEYAAVIEINMDDIKEPIIA CPNDPDDVCFMSERSG TKIDEVFIGSCMTNIGHFRAASKLLEGKADTPVRLWIAPPTKMDAKQLSDEGHYGVLGRA GARMEMPGCSLCMGNQAQVREGATVMSTSTRNFPNRLGKNTFVYLGSAELAAICSKLGKIPTVEEYQANIGIINEQ GDKIYRYMNFNEIDSYNEVAETVNV
150	1574	MQVYYDKDADLSLIKGTVAIIGYGSQGHAAANLKDSGVNVVIGLRQGSWKKAEAAHVKTVAEATKEADVVM LLLPEDETMPAVYHAEVTANLKEGATLAFAGFNHYNQIVPRADLDVIMVAPKPGPHTVRSEYKRGGGVPSLIAVY QDN SGKAKDIALSYAAANGGTKGGVIETTFREETETDLFGEQAVLCGGVVELIKAGFETLTEAGYAPEMAYFECLH EMKLI VDLIFEGGIAMNYSISNNAEYGEYVTGPEVNVASSKEAMRNALKRIQTGEYAKMFIQEGNVNYASMTARR RLNADHQVEKVGAQLRAMPPWITANKLVDQDKN
151	1577	MQLSGAQII VQSLKAE GVEYVFGYPGGAVIEIYDALFQLNKFKHILTRHEQAAVHAADAYARVSGKVGVALVTSGP GVTNALTGIATAYTDSIPMVVISGQVGNLIGTDAFQEVDTVGITRCPVKHNFVTDINELAETIKKAFQIAASGR PGPVVVDVPKDVTOAMAKFSYPQEDIFIRSYQPVVQGHIGQIKAVQMLASAKRFVVFYFGGGVVLGNASEELTRFV RMTGAPCTGTMLGLGAYPSGDRQFLGMLGMHGT YEANLAMQNDVVLAVGARFDDRVSVP SKFFEKAKKVIHIDV DPSSIAKRVKVDIPIVGDVKNVLSEMVALLWQKQESVPSEDALGKWKTI EEWRSRDLWF DNGSEI IKPQYVIQKL AEITGNSAIITSDVGQHQMFQAQYYPFERPROWLNSGGLTGMVGLPYAIGAKLAAPDQDVFCITGDGSIQMNIOE LSTCFQYRIPVNVITLNNGYLGMVRQWQEIYYGGRESETYFDSLPDFVKLA EAYGHIGIRVDKSDVEGALLEALN QKDRLVFIDFLTDQKQNVMPMVGNGKGLDEMVLPPHMRADGKA
152	1581	MKKLNTQSPDFQAGLKALLAFETAQN PETERIVADICADVQKRGAALIEYTNKFDQTNAKSIDDILITQADLNAA FERIPNDVQTALQTAARRVESYHQKQMESWYTD EGTLLGQOITPLDRVGIYVPGKKAAYPSSVIMNAMP AHVA GVKEIIMVPTPKGERNDIVLAAAYVAGTVKFTVVGGAQAVAAALAYGTETIPQVDKITGPGNAFVAAAKRRVFGV GIDMVAGPSEILVIADGTT PADWVAMD LFSQA EHD EIAQAILIGTSQAYLDEVEAAMDRLIETMPRRDII EASLGN RGAMILAKDLDEACEIANYISPEHLELSVENPQEWAKKIRHAGAIMGRYTGESLGDYCAGPNHVLPTSR TARFSS PLGT YDFQKRSSLIQVSEQQAQKLGETASVLAHGESLTAHARA AEFMRK
153	1583	MNLTKTQRQLHNFLTLAQEAGSLSKLAKLCGYRTPVALYKLRLEKQAE DDPARGIRPSLMAKLEKHTGKPKGWL DRKHRETRVPETAESTGTAE TQIAETASAAGCRSVTVNRNTCETQITVSINLDGSGKSRLDTGVPFLEHMDQIA RHGMIDIDISCKGDLHIDDHHTAEDIGITLGOAIRQALGDKKIRRYGHSYVPLDEALS RVVIDLSGRPGLVYNIE FTRALIGRFDVDFEEFFHGI VNHSMMLTHIDNLSGKNAHQAE TVFKAFGRALRMAVEHDP RMAGQTPSTKGTLT A
154	1595	MKTSELROKFLKFFETKGHTVVRSSSLVPHDDPTLLFTNAGMNQFKDVLGFDKRPYSRATTAQKCVRAGGKHNDL ENVGYTARHHTFFEMGNFSFGDYFKRAIHFAWEFTSP EWLNI PKDKLLATVYAEDEAYNIWLNEIGMP SERI VRIGDNKGAKYASDNFWQMGDTGPCGPCSEIFYDHGEEIWGGIPGSPEEDGDRWIEIWNVCVMQFN RDEQGNMNP PKPSVDTGMLERIAAVMQHVHSNYEIDLFDQLLKAVARETGAFFRMEEPSLKV IADHIRSCSFLIADGVLP SNEG RGYVLRRIIRRAVRHGYKLGQSKPFFHKLVLADLVKEMGGAYPELKEKQAEALKNEESRFAQTLETGMALLENA LVKGGKTLGGEIIFKLYDTYGFYPDLTADICRERNIEPDEAGFEREMEAQRARARAAQSFKANAQLPYDQDTEFK GYSERQTESKVLALYKDGQVNE LNEGDSGAVVIDFTPFYAESGGQVGDVGYIFSGENRFEVRDTQKIKAAVFGQF GVQTSGR LKVGDSVTAKVDDEIRNANMRNHSATHLMHKALRDVLGRHVEQKGS LVTAESTRFDISHPQAVTAE EIA EVERRVNEAILANVAVNAIMS MEDAQKTGAMMLFGKEYGEEVRVLQMGGFSTELCGGTHVSRTGDIGLFKII SEG GIAAGVRRIEAITGLNALKWAQE QERLVKDI I AETKAQTEKDVLA KIQAGAAHAKALEKELARAKAE LAVHAGAKL

		LDDAKDLGAAKLVAAQIEADAAALREIVTDLTGKSDNAVILLAAVNDGKVSCLAGVSKPLTGKVKAGDLVKFAAEQ VGGKGGRPDLAQAGGTADADKLPAVLDSVKDWVGAQLV
155	1604	MELVFIHQSEWNAKNLFTGWRDVKLSEQGLAEAAAAGKKLKENGVEFDIAFTSVLTRAIKTCNIVLEESDQFLV PQIKTWRLNERHYQLQGLDKKQTAEQYGDQVRIWRRSYDTLPPLDKDDEFSAHKDRRYAHLPAVVPDGENLK VTLERVLPFWEDQIAPAILSGKRVLVAAHGNSLRALAKHIEGISEDIMGLEIPTGQPLVYKLDNKLKIEKFYL
156	1621	MGIYDFQMKDAEGNAVDLSGYRGKVLIVNTATRCGLTPQYEALQKLYAQYTAEGLEILDFPCNQFREQAPESSGE IAQVCMKFGTKFKIFDKIEVNGANTAPLYAYLKSVPQDKGNHLFKDFVLKLAALGEKRDEGDIKWNFTKFLVNR DGEVVERFAPSVTPEEIEADIRALL
157	1636	LLFSSLLFSSLLFSSLLFSSAAQASESSRSPYYQADLAYAAERITHDYPKPTGTDKDKISTVSDYFRNIRAH YHPRVSVGYDFGWRIAADYASYRKWNKKYSVNIKKGRETQDNREELKTENQENGSHAASSLGLSAIYDFKLN KFDKFKPIGARVAYGHVKHGVHSHVETKTTIVTSKPAATSPQGGPIET
158	1640	MSLYPIYNFSAGPAVLPEAVLETARQEMLDYNGTGFPVMAMSHRSEMFLSILHHAEQDLRQLKVPDNYKILFLQ GATTQFNMAAMNLAHGFRITADAVVTGNWSRIAYEQMSRLTDEIRLAAHGGEQFDYLDLPPVETWDVAPDSAFVHF AVNETVNGLQYREVPCLSEGMPPLVCDMSSEILSREFDVADYGLIYAGAQNIGPAGVTVIVREDLLERCNDIP DVFNYSRSHINRDGMNTPSTYAIYMSGLVFRWLQAQGGVKKIEAVNRLKAQTLYETIDGSDGFYINRIRPNARSKM NVVFQTDGEELDRRFVLEAELQGLCLLKGYKTVGGMRASTYNAMPLEGVRALADFMDFQRRYG
159	1642	MSREMLQALAEALASEKNVDAEVVFQALEFALSTAAKKKADREHMDVRVQINRDTGEYQTFRRWLIVADEDYTPDV EKTIEEIQEEIPGTTIQIGEYEEQLPNEGFGROAAQTAKQIILQIRDAEREQNLNEFLAVKEDIVSGTVKRVER HGIIVEVVAGKLDALIPRQMI PRENFRSGDRIRALFLRVEEIGNTRGRQVILSRTSGDFLVKLYANVEPEIADGM LEIRAVARDPGQRAKVAVKANDQRIDPQGTICIGVRGSRVNAVSNELSGERIDVVLWSPEPAQFVMSALSPAESRI VIDEDKHAVDVIAEDQLALAIGRGGQNVRLASDLTGWQLNIMTSAEADERNAEADAIRLFMDHLNVDEETADV LVQEGFATLEEVAYVPAELLAIEGFDEEIVDMLNRNARDAILTMAIAAEKLGESDDMRNLEGIDADMLRSLAE AGITTRDDLAEALAVDELIEITGVNEETAKAVILTAREHWFTEDK
160	1655	MVHIMFNQAAQELTTIRDLRFAVSRFNEAGLFFGHGTDAHDEAAYLILHTLNLPLDMLAPYLDKLLAEKEEV LAVIERRAVEHIPAAYLTHQAWGEFDFYVDERVIIPRSFIYELGDGLRPWIEYDELVNALDLCTGSGCLAIQM AHHPDAQIDAVDVSLDALEVAGINVEDYGLEERIRLIHTDLFEGLEGTYDLIVSNPPYVDAESVELLPPEYLHEP ELALGSGADGLDATRQILLNAKFLNPKGVLLVEIGHNRDVLEAAYPELPFTWLETSGGDGFVLLTREQLLGE
161	1684	MLDIQLLRNSTAAVAERLARRGYDFDTRFDTLEERRKSQVKTEELQASRNSISKQIGALKQGKGHEEAQAMNQ VAQIKTDLEQAAADLDAVQKELDAWLLSIPNLPHESVPAGKDETENVEVRKVGTPREFDFEIKDHVDLGEPLGLDF EGGAKLSGARFTVMRQIARLHRLAQAQFMDLTHLQHGTYEHTPYIYVDDTLQGTGQLPKFAEDLFHVTRGGDET KTTQYLIPTAEVTLTNTVADSIIPSEQLPLKLTAHSPCFRSEAGSYGKDRGLIRQHQFDKVMVQIVHPEKSYET LEEMVGHAEINILKALELPYRVITLCTGDMGFGAAKTYDLEVWVPAQNTYREISSCSNCEDFQARRLKARFKDENGK NRLVHTLNGSGLAVGRTLAVLENHQNADGSIINIPALQPYMGVAKLEV
162	1691	MARHVWQAGRFEIGLDPKIMGIVNLTDPDSFSDGGVYSQNAQTALAHAEQLLKEGADILDIGGESTRSGADYVSPE EEWARVEPVLAEVAGWGPISLDRRTVIMEKALALGGIDIINDVAALNDEGAVELLARQADTGICLMHMQLPKT MQINPKYQDVVGEVARYLKARSAECIAAGIAPQRIILDPGFGSGFGKPLQHNIALMRHLPDMAETGFPLIGVSR KSTIGELTGEANAAERVHGSVAAALASVARGAQIVRVHDVKATADALKVWEALGINL
163	1710	MTDLNTLFANLKQRNPQEPFHQAVEEVFMSLDPFLAKNPKYTQSSLLERIVEPERVVMFRVTWQDDKQOVQVNRG YRVQMSSAIGPYKGLRFPHTVDLGLKFLAFEQVFKNALTTLPMTGGKGGSDFPKGSDAEVMRQCQAFMTELY RHIGADTDVPAGDIGVGGREIGYLFQYKKIRNEFSSVLTKGLEWGGSLIRPEATGYGCYVFAQAMLQTRNDSFE GKRVLISGSGNVAAQYAAEKAIQLGAKVLTVSDSNGFVLFPSGMEQAALAILKEVRRERVATYAKEQGLQYFE KQKPWGVAEIALPCATQNELDEEAAKTLANGCYVVAEGANMPSTLGAVEQFIKAGILYAPGKASNAGGVATSGL EMSQNAIRLSWTREEDQRLFGIMQSIHESCLKYKGVGDTVNYVNGANIAGFVKVADAMLAQGF
164	1716	MAFYAFKAMRAAALAAVALVSSCGKGGDAAQGGQAGREAPAPVVGVTVHPQTVALTVELPGRLESRLTADVR AQVGGIIQKRLFQEGSYVRAGQPLYQIDSSYEALESARAQLATAQATLAKADADLARYKPLVAAEAVSRQYDA AVTAKRSAEAGVKAQAIAKSAGISLNRSRITAPISGFIGQSKVSEGLLNAGDATVLTATIRQTNPMYVNVQTSAS EVMKLRRQIAEGKLLAADGVIAVGIKEDDGTVPYPEKGRLLFADPAVNESTGQITLRAAVPNDQNILMPGLYVRVLM DQVAVDNAFVVPQAVTRGAKDTVMIVNAQGGMEPREVTVAQQGTNWIVTSLKDGDKVVVEGISIAGITGAKKV TPKEWASSENQAAAPQSGVQTASEAKPASEAK
165	1796	MIMAKKISILVGLRRASFARKVALNAAEMFPEGWQAEIVEIGHLPLYNFYDDPAVEDVPLPESYAFRETIKAS DGILFVTSENNRTIPACLKNAVDIGSKPNADVAWKNKPAGIISHSVGKMGYSSQKNRLALSDFDMPVTGQPEVF LGNSPTLFDENGKLIDSARDFVQSYINQFVGLIERNK
166	1809	MNNLIKINLLPYREEMNKRQOQFKTLMYGAULTGVAAVAATYLFIDNMINNQSERNTLLETSHIHLDTLSEIQK LKQEKDAFLIKKNKIEELQLRLQAAILDSLNEAVPGSTYLTSLDAVTADSRLSGRTSSDNRAAMMRAMPNTG IFKQPELLSIKKNNSHQEFTLQATLQPIVKAESKENPASGNAQEAN
167	1810	MASKSSKTNLDLNNLHLLNLPARLFALLAVAVALGLGYAGLFKSQMESLEEYEAKETELKNYKQKSIDAASLNN LRDELASIRSAFDIMLKQLPTDAEIPNLVQELHQAGSSNGLRLDSVMPQPPVDDGPIKRLPYSISITGNYEQISQF

		TRDVGSLSRITLESCLKIAQSPENGGNPDGKSSILNLSAIATTYQAKSVEELAAEAAQNAEQK
168	1811	MKHYALLISFLALSACSQGSDELNEWMAQTRREAKAEIIPFQAPTLVPAPVYSPQLTGPNADFRRMETDKKGEN APDTRIKETLEKFSLENMRVYGILKSGQKVSFIEAEGYVYTVGVGNLYGQNYGRIESITDDSIVLNELIEDSTG NWVSRKAELLNSSDKNTEQAAAAPAEQN
169	1812	MNTKLTKIISGLFVATAAFQTASAGNITDIKVSSLPNKQKIVKVSFDKEIVNPTGFVTSPPARIALDFEQTGISMD QQVLEYADPLLSKISAAQNSSRARLVNLNKPQYNTVEVRGNKVWIFINESDDTVSAPARPAVKAAPAAAPAKQQA APSTKSAVSVSEPFPAKQQAAPFTESVSVSAPFSPAKQQAASAKQQAAPAKQQAAPAKQQAAPAKQTN DFRKDGKNAGIIELAALGFAGQPDISQOHDHIIVTLKNHTLPTTLQSRSLDVADFPTPVQKVTLLKRLNNDTQLIITT AGNWELVNKSAAPGYFTFQVLPKKQNLSEGGVNNAPKFTTGRKISLDFQDVEIRITILQILAKESGMNIVASDSVNG KMTLSLKDVWDQALDLVMOARNLDMRQQGNIVNIAPRDELLAKDKALLQAEKDIADLGALYSQNFQKYNVEEF RSILRLDNADTTGNRNTLISGRGSLIDPATNTLIVTDTRSVIEKFRKLIDELDPAAQVMIEARIVEAADGFSRD LGVKFGATGKKLKNDSAFGWGVNSGFGDDKWGAETKINLPITAAANSISLVRASSGALNLSASELSKTK TLANPRVLTQNRKEAKIESGYEIPFTVTSIANGGSSTNTELKKAVALGLTVPNTIPDGQIIMTVKINKDSPAQCAS GNQTLICISTKNLNTQAMVENGGLTIVGGIYEEDNGNTLTKVPLLDIPVIGNLFKTRGKKTDRRELLIFITPRIM GTAGNSLRY
170	1835	MSVIQDLQSRGLIAQTTDIEALDALLNEQKIALYCGFDPTADSLHIGHLLPVLALRRFQOAGHTPIALVGGATGMI GDPSFKAAERSLNSAETVAGWVESIRNQLTPFLSFEQGNAAIMANNADWFGSMNCLDFLRDIGHKFSVNAMLNKES VKQRI DRDAGISFTEFAYSLLQGYDFAELNKRHGALEIGGSDQWGNITAGIDLTRRLHQKQVFLGLTLPVTKSD GTFKFGTEGGAVWLNAKKTSPYQFYQFWLKVADADVYKFLKYFTLSIEEIDAIEAKDKASGSKPEAQRI LAEEMT RLIHGEALAAQRISESLEFAEDQSSLTESDFEQALDGLPAFEVSDGINVVEALVKTGLASSNKEARGFVNSKAV LLNGKPAEANNPNHAAERPDACLNGEHKRFKGYTILRRGRNHALLVWK
171	1838	MSLCKGIVGLPNVGKSTLFNALTQSGIEAANYPFCTIEPNVGIVEVPDPRMAELAKIVNPQKMQPAIVEFVDIAGL VAGASKGEGLNQFLANIRETDAIVNVVRCFDDNIVHVAGRVPIADIETIGTELALADLASVEKAIVREEKRAR SGDKDAQKLVLDLCKLLPHLDEGKPVRSFGLDAERAMLKPLFLLTAKPAMYGVNVAEDGFENNPHLDRLKELAAK ENAPVVAVCAAMESEIAELEDEKAEFLAEMGLEEPGLNRLIRAGYDLLGLQTYFTAGVKEVRAWTIHKGDTPAQ AGVIHTDFERGFIRAQVISYDDFVSLGGEAKAKEAGKMRVEGKEYVVQDGVMMHFLFNV
172	1843	MPTQSKHASINIGLIQAREALMTQFRPILNOANITDQQRRIIRLLAENGLDFQDLANQACILRPSLTGILTRLEK AGLVRLKPSNDQRRVFLKLTAEGEKLYEEIGEEDERYDAIEEVLGREKMLLLKDLAELAKIEDALNS
173	1849	MSTPALLVLADGSVFHGTSGIEGEGSTSEGVVFTSMTGYQEILTDPSTYCKQIVTLTYPHIGNGTNAEEDERSVY AAGLIIRDPLLSNFRASESLHDYLVNRKTVAIADITRRLTTLREKGAQGGAILTGADATIEKAQELIAAFGS MVGKDLAKEVSCTETIYEWTEGEWALGKGFVTPDEQPYHVAYDFGVKTNILRMLASRGCRITVVPQTSABDVLA NPDGVFLSNGPDPECTYAIKAVQKLIESGKPIFGICLGHQLISLAIGAKTLKMRFSHHGANHPVQDLDSGKVI TSQNHGFAVDADTLPANARITHKSLFDNTLQGIELTDKPVFCFQGHPEASPGPDVGYLFDKFIGNMKAakra
174	1854	MSIPINFNNLKYLLNDMRNKNRIIEAFPNYNQRYAVILTRYKPEPRDDYAQAKLEFFNLNSENSIFAYADFY EVHFKSATDFINFFKINVQAGAAKIREIQSFSNLFADFIPTQTKKLDIIYKKIVATRLPENSPNTIYCYDVRRN GDKAGKPNRRSVENSEKAKILRPELYEFKADSNYSFFSDNPSDEKTDAEIIEVNTNRQ
175	1855	MPKRTDLKSILIGAGPIVIGQACEFDYSQAACKALREEGYKVLVNSNPATIMTDPEMADVITYIEPIMWQTVK IIAKERPDAILPTMGQTALNCALDLARNGVLAKYNVELIGATEDAIDKAEDRGRFEKAMEKIGLSCPKSFVCHTM NEALAAEQVGFPTLIRPSFTMGSGGGIAYNKDEFLAICERGFASPTHELLIEQSVLGWKEYEMEVEVRDKNDNC IIICSIENFDPMGVHTGDSITVAPAQTLDKEQYQIMRNASLAVLREIGVDTGSGSNVQFAVNPANGEMIVIEPNRV SRSSALASKATGFPIAKVAKLAVGFTLDELNDITGGKTPASFEPSIDYVVTKIPRAFEKFPAAADRLLTQMKS VGEVMAMGRTIQESFQKALRGLETGLCGFNPRSEDKAEIRRELANPGPERMLFVADAFRAGFTLEEIHEICAIDPW FLAQIEDLMKEEKAVSDGILSDLDFAALRLKRGFSDKRLAQLLNVSEKEVREHRYALKLHPVYKRVDTCAAEFA TETAYLYSTYEECESRPSDRKKVMILGGGNRIGQGIEFDYCCVHAALALRESGFETIMVNCNPETVSTDFDTS RLYFEPLTLEDVLEIVRTENPWGVIVHYGGQTPKLKANALVENVNIIGTSADSIDAAEDRERFQKVLNDLGLRQP PNRIAHNEEALVKAEEIGYPLVVRPSYVLGGRAMQVVSAAELQKYMREAVQVSEDSPVLLDFFLNNAIEVDVDC VSDGKDVVIGGIMQHVEQAGIHSGDSCSLPPYSLSEEIQDEIRROTAMAYALGVVGLMNVQFAVQDGVVFLV NPRASRTVPFVSKATGVPLAKVGARCMAGISLKEQGEVEVVPDFYAVKEAVFPFIKFPQVDTILGPEMRSTGEVM GVGASFEAYYKAQLGAGERLNPTGKIILSVREEDKERVITAKNFQVLGYGICATRGTAQYLTEHGLIVQTI PEGRPHIGDALKNGEIALVVNTVSSDPQSVSDSHIIRQSALQQRVPQYTTTAGGEAMSEGAKSRLHGVYSVQELH GRLKNRN
176	1859	MDISDFDTLPEKLIHQHPPEVRGSSRLVALPDMPLQDRVFGDLPDYVEAGDVLVFNNTKVMKARLFGQKDSGGR IEALIERVLDNHTALAHIRSSKSPKPMGLVFEGGIRAVTVGREGELFCLRFEGGETVYELEQNGHLPLPPYIER AADADDDSRQTVYAKYQGAAPTAGLHFTTELLHRLKDKGAVTAEVTLHVAGAGTFQPVVDKIEHKMHSEWFE VPSETAAAVEAAKARGNKVWAVGTSMRALESAAARATGRKAGQGDITFITPGYRFNVVDRLVTNFHLPKSTLLM LVSAFSGMGHIRAAYRHAVEREYRFFSYGDAMVLGRNEGVVR
177	1861	MLKKVLIANRGEIALRVLACREMGIATVAHVHSEADKDSLHVKLADESVCIGPAASAQSYLNPVPAIAAAEVSCAD AVHPGYGLAENADFAEQVEQSGFTFIGPKPDTIRLMGDKVSAKHAMIAAGVPCVPGSDGALPDDGEEILKIADKV

		GYPVIIKASGGGGGRGMRVVEKKEDLLQSVEMTKAEGAAFGNPMVYMERYLQRPHEVIEQVIADDEHGNATYLAER DCSLQRRHQKVEEAPAFFITEKERAKIGNACADACKRIGYRGAGTFFELYEDGEEFFIEMNTRVQVEHPVTELIT GVDIVQEQRLIAAGLPLOYKQKDIQVEGHAFECRINAEDPYNFIPSPGLIESCHLPGGFGIRVDSHIYQGYRIPPY YDSLIGKICVHGKTRQAMAKMRVALAELAVTGIKTNTPLHRDLFADAGFQKGGVSIHYLEHWLEDRKAKQDK
178	1862	MPYQQITVNVNDAVERLADALMEHGALSAAIEDAYAGTQNEQAI FGEPCMPAEQIWQQSKVIALFGEHDEAAAI QTATQECGLKDLAYTGETIEDQDWRLTQSQFDPFIRISDRLWITPSWHEVPEGSANLRLDPGLAFGTGSHPTRRL CLKWLDTLQKNGESVLDYCGSGGILTIAALKLGAGFAVGVDIDEQAVRAGKDAAQNNVDAQFFLPDGLPQQQFDV VVANILANPLRMLGEMLAARTKQGGRIVLSGLLDEQAEELGGIYSQWFDLDPATEEGWARLSGVKR
179	1864	MNRNEILFDRAKAIIPGGVNSPVRAFGSVGGVPRFIKKAEGAYVWDENGTRYTDYVGSWGPVIAVGHAPPEVETVC EAALGGLSFGAPTEGEIVIAEEIAKIMPSVERLRLVSSGTEATMTAIRLARGFTGRDKIIFEGCYHGHSDSLVK AGSGLLTFGNPSSAGVPADFTKHTLVLEYNNIAQLEEAFAQSGNEIACVIVEPFVGNMNLVRPTEAFVKALRGTE KYGAVLIYDEVMTGFRVALGGAQSLHGITPDLTMTGKVI GGGMPLAFAFGGRKDIMECISPLGGVYQAGTSLGNPIA VAAGLKTLEIIQREGFYENLTARTEQLVQGFRTAADAAGIEFTADSVGGMFGLYFAAHAPRNYADMARSNI EGFQK FFHGMLDRNVAFGPSAYEAGFVSAHTPELIDETVAVAVEVFKAMAE
180	1903	MTLAEFWPLCLRLHDMPLPQQQFAQWIAPLTVGEEGVWVYVGNQFACNMLKSQFAGKIEAVREELAAGRSAFVF KPGEGVRYEMAAVEGAVEPAEPSLHAVSEGMPVQEVLLDELPEEPVKPAASKTAADILAE RMKNLPHEPRQAAGS ASRPESVAVAKARTDVQRDAEEARYEQTNLSPDYTFDTLVEGKGNRLAAAAQAIASPGQSYNPFLLYGSTGLGK THLVQAVGNELLKNRPDAKVRMHSDDYIRSFMAVRNNTYDVFQOYQYDILLIIDDIFIKGKDRTMEEFFLY NHFHNEKKQLILTCDVLPKIEGMDRLKSRFSWGLTLELEPPELEMRIAILQKKAEEAGISIEDEAALFIANLIR SNVRELEGAFNRVGASSRFMRNPVIDIDLARTALQDITAEKHKVTADIIIDAVAKYRIKISDVLGKKRTRNIAR PRQVAMSLTKELTTLSLPSIGDSFGGRDHTTVMHGIRAVAKLREEDPELAQDYELLILIQN
181	1920	MTQDKILILDFGSQVTQLIARRVREAHVYCELSHSDMPLDEIKAFNPKGIILSGGPNVSYESDYQADTGIFDLGIP VLGICYGMQMAHHLGGEVQPGNQREFGYAQVKTIDSELTRGIQDGPNTLDVWMSHGDKVSKLPDGFVAVIGNTPS CPIAMMENAEEKQFYGIQFHPEVTHTKQGRALLNRFVLDICGAQPGWTPMNYIEEAVAKIREQVGSDEVILGLSGGV DSSVAAALIHRAIGDQITCVFVDHGLRLNESKMVMDFARNLGKVIHVDAGQFMAGLAGVTDPEKKRKII GAE FIEVFDAEEKLTNAKWLAAQGTIYPDVIESAGAKTKKAAIKSHHNVGGLPENMKLKLLEPLRDLFKDEVREL GVA LGLPREMVYRHFPGPLGVRILGEVKEYADLLRQADDIFIQELRNTTDENGTSWYDLTSQAFVAVFLPVKSVGVM GDGRTYDYVIALRAVITSDFMTAHWAELPYSLLGKVSNRIINEVKGINRVVYDVSCKPPATIEWE
182	1921	MSTQDLNGKIALVTGASRGIGAAIADTLAAAGAKVIGTATSESGAAAI SERLAQWGGEGRVLSNAEPETIESLIAD IEKAFGKLDLILVNNAGITRDNLMMRKEEEDDITMQVNLKSVFRASKAVLRGMMKQSRGRIINITSVVGMGNAGQ TNYAAAKAGLIGFSKSMAREVGSRGITVNCVAPGFIDTDMTRALPEETRQFTTAQTALGRFGDAQDIADAVFLAS DQAKYITGQTLHVNGGMLMP
183	1930	MMTQTLIELLTELPEPKALNNLGNHFAASVAEGLEKAQLVDGAAEFTAYASPRRLAVQVKNVAVQADQKIVKKG PAVANAMKDGAPT KALEGFARGAGAKIEDLTI VHDGKQDVYAYEVQIGKPLGGLEDIIINQAVKKLPIPKVMRWG SSTFTFVRPVHGLVVLHGGDIVNVSVLGLQSGNKT LGHRFLSDGEIT IENADSYAQMREQKVVASFAERKAAIQ TVLEGQARRLNATAAALLDEVTALEWVPVLEAGFEEHFLAVPQECILITMQQNKYFPLLDQNGKLMNRFL VSNLQTEDPSHIIQGNERVLRARLSDAEFFYKQDKATLESRLPKLTNNVYHNKIGSQAERIERLQSI AAHIAKAL GADAAAERAARLAKADLVTEMVGEFFELQGTMGKYARLDGETEITEAVEQHYQPRFAGDNLPEGKIAAAVALA DKLETLVGIWIGLIPITGDKDPYALRRALGILRLMQYGLDVNELIQTAFNSFPQGLLNEKTPSETADFMQARLA VLLQNDYPQDIVAAVLAKQPRRLDDLAKLQAVAAFKQLPEAAALAAANKRVQNLKKADAELGAVNESLLQDDEE KALFAAAQGLQPKIAAAVAEGNFQALSELASVKPQVDAFFDGMVMAEDA AVKQNRNLNLRLAEQMNADIAL LGE
184	1934	MSQGKIVQIIGAVVDVEFFPRDMI PRVYDALKLDENGLTLEVQQLLGDGVVRAIAMGSSDGLKRGMTVSNTGAPITV PVGKGTLGRIVDVLGTPVDEAGPIDTDSRAIHQAAPKFDELSTTELETGIKVIDLLCPFAKGGKVGLFGGAGV GKTVMNMELINNIKAHSGLSVFAGVGERTREGNDFYHEMKDSNVLDKVMVYGQMNPPGNRLRVALTGLTMAEY FRDEKDENGKGRDVLFFVDNIYRYTLAGTEVSALLGRMP SAVGYOPTLAEEMGRQERITSTQTSITSIQAVYVP ADDLTDPSPATTF AHLDATVVLSDIASLGIYPAVDPLDSTSRQLDPMVLGQEHYDVARGVQSTLQKYKELRDI IA ILGMDLSDDEKLTVMRARKIQRFLSQPFHVAEVFTGSPGKYVALRDTIAGFKAILNGEYDHLPEQAFYMVGSIEE AVEKAKTLN
185	1936	MQLNPAEISDLIKAKIENLSVNAEVRTCCTVISVTDGIVRIHGLSDAMQEMLEFPNGTFLGAMNLERDSVGA VVL GEYEHKEGDTVTCTGRILEVPVGRVGRVVDALGRPIDGKGPINTTLTAPIEKIAPGVIARKSVDPQMOTGLKA IDSMVPVGRGQRELIIGDRQTGKTAVALDAIVNQKGTGVICIIYVAIGQKASSIANVVRKLEHGAMEHTIVVAATA SEAAALQYIAPYSGCTMGEFFRDRGEDALIVYDDL SKQAVAYRQISLLLRPPGREAYPGDVLYLSRLLEAARV NEHEVEKLTNGEVKGTGSLTALPIIETQAGDVSAFVPTNVISITDGQIFLETDLFNAGIRPAINAGISVSRVGA AQTKVKKLGGGIRLALAQYRELAASFQASDLDEATRQLEHGEVVTELMKQKQFSTLNTAEMALTWAINNGSY SDVPVAKALAFESEFLSFVRTQHPVEVLEAVNASGAMSDESEKTLAAMKSFKSSYAYQA
186	1937	MAEFATIPARPYAKALFGLAQEKNQIESWLGGLEKLAADVQEGKVASLIDRPETNASEKADILIDLVLGKDKELKNF VIVLAGQKRLSILPEVYAYQYQDLTSLFNHKS AVIY SAYPLTDKQVGELVQMLNKRFDSELKISVEIEPELIGGIK

		VEVGQVLDLSVQKLSALYTTMTN
187	1938	MNINATLEAQIIVFFGLVWFTMKFVWPPIAKALDERAAKVAEGLAAAEERGKSDFEQAEKKVAELLAEGRNQVSEMV ANA EKRAAKIVEEAKEQASSEAARIAAQAKADVEQELFRARESREQVAVLAVKGAESILRSEVDASKHAKLLDTL KQEL
188	1953	MMTLYSGITCPSHRCRFVLYEKGMDFEIKDVIDIYNKPEDLAVMNPYNQVPVLVERDLVLHESNIIINEYIDERFPH PQLMPGDPVMRGRRLVLYRMEKELFNHVQVLENPAATNKEQAKAREAINGLTMLAPSFSSKYILGEDFSMIDV ALAPLLWRLDHYDVKLGKSAAPLLKYAERIFQREAFTEALTPAEKAMRK
189	1966	MSPSPFIEMKDVAFAFGDRPILKNINFSIPQGNFAVMGGSGSGKTTLMRLITGQIRPQSGQVLEGRDLAGFSAD ELYEHRRRMGVLFQHGALFTDLSVFDNIAFPRELTRLPEAVIRDLVLLKNAVGLRGVENLMPSELSSGMSRRVA LARTIALDPEIMLYDEPTGLDPISLGVIAHLISRVNKALRSTSIMVTHDIEKSLEIVDQVIFLAHGEIMFSGSPQ EMRELDSPWVRQFVGGLADGPVAYRYPAQTSLOQDILLG
190	1968	MKQLAMYINGRFENDFNGEWRDVLNPSTEEAIAREPFKGGKADVDRAVAAAQAPOWERLPAVERGAYLRKIAQGI RERADELTDITVAEGGKTKDLARVEVMFTADYLDYQAEWARRYEGEIIQSDRPRENILLFKRPLGVIAGILPWNFP FFLIARKMGPALVTGNTIVVKPSSVTPINCHIFAEIVDAVGLPAGVFNVNPGAEIGNALSHPQVDMVSLTGSV EAGRQVMEASANTKVSLELGGKAPAVLKDADLDLAVKSILASRVGNTGOICNCAERYVYHSSSLKDAFIEKMTA AMKGVRYGNPAEAEAGALEMGPLIEERAVKAVAEKVERAVKQGAQLVCGGKRAEGRGYFFETPLTDDNSMDIMK EETFGPVLPSAFDTLQVIALANDCEFLTSSVYTTNLNEAFYVTRRLQFGETYINRENFEAMQGFHAGWKKSIGI GGADGKHGLEEYLQTQVYLETDI
191	1982	MSNRPTLLLDVGSSSYLYRAYHAMQNLTPADGAPTALYGVNLMLRRLRSEYPHDYCAVVFDAKGNFRHQMFEEY KATRPMPDDL RPQAEALPDLVRLTGWPVLVIGQVEADVI GTLAKQGAHGLRVI VSTGDKDMAQLVDERVTLVN TMSSETLDIEGVKAKFGVRPDQIRDYLA LMGDKVDNVPVGEKCGPKTAVKWLEAYGSLAGVMEHASEIKGKVGENL QAALPQLPLSYDLVTIKTDVDLHAE LSGIESLRRTTPKWAQLVDFKRWGFRWLKEAESNMNTGSTDDLFGSDS IGEQAALNAEMPFEKQAEKATAPEKLDYQAVTTEAQFAALLDKLSRADTIGIDTETSTSLDAMNASLVGSI AFAQG EAVYIPVGHS LTAPEQLDLQDVLGR LKPHLGNPALKKIGQNLKYDQHV FANYGIALNGIAGDAMLASYIIESHLG HGLDELSE RWLGLETITYESLCGKGAQIGFADVAIGQATEYAAQDADFALRLEAHLRAQMDEKQLEMYEKMELPV AQVLFEMERNVQIDRAELARQSAELGAELMKLEQAYAAAGQPFNLNSPKQLQEILFDKMGIP TKGLKKTAKGGI STNEAVLEQLAPDYPLPKIILQNRSLAKLKSTYTDKLP EMI SPKDRGVHTTYAQAVAITGR LASNNPNLQNIPIRT EEGRKVRRAFTAPQGSVIVSADYSQIELRIMAHLSGDKTLIAAFQNGEDVHRRTAAEVFGTAPENVSS EQRRYAKS INFG LIYGMGQYGLAKSLGIDNLSAKNFIDRYFARYPGVAEYMQRTKEQAAAQGYVETLFGRLYLPDIRNKNANA RAGAERAAINAPMQGTASDLIKRAMIDVSRWLSECEASPWDELLQSKLIMQVHDELVLLEVETELDFVKEKLPQIM AKVDGGLLDVPLVAEVGVGENWEEAH
192	1996	MSVVLPLRGVTALSDFRVEKLLQKAAALGLPEVKLSSEFWYFVGSEKALDAATVEKLOALLAAQSVEQTPKAREGL HLFLVTPRLGTISPWASKATNIAENCGLAGIERIERGMVWLEGRLNDEQKQQAALLHDMRTESVLPDFQTASKL FHHLESETFSGVDVLGGKKEALVKANTEMLALSAD EIDYLVENYQALQRNPSDVELMMFAQANSEHCRHKIFNAD FILNGEKQPKSLFGMIRDTHNAHPEGT VVAYKDNSSVIEGAKIERFYPNAAENQGYRFHEEDTHIIMKVETHNHPT AIAPFAGAATGAGGEIRDEGATGKGSRPKAGLTGFTVSNLNI PDLKQPWEQDYGPKEHISSPLDIMIEGPIGGAAF NNEFGRPNLLGYFRTEFEKFDGQVRGYHKPIMIAGGLGSIQAQQTHKDEIPEGALLIQLGGPGMLIGLGGGAASSM DTGTNDASLD FNSVQRGNPEIERRAQEVIDRCWQLGGKNPIISIHDVGAGGLSNAFPELVNDARRGAVFKLREVPL EEHGLNPLQIWCNESQERYVLSILEKDLDAFRAICERERCPFAVVGATDDGHLKVRDDL FANNPVDLPLNVLGK LPKTRTDKTVAPSKKPFHAGDIDITEAAYRVLRLPAVAAKNFLITIGDRSVGGLTHRDQMVGYQTPVADCAVTM MGFNTYRGEAMSMGEKPTVALFDAPASGRMCVGEAITNIAAVNIGDIGNIKLSANWMAACNEGEDEKLYRTVEAV SKACQALDLSIPVGKDSL SMKTVWQDGEKKSVVSPSLISI SAFAPVKDVRKTVTPELKNVEDSVLLFVLDLGFKA RMGGSFAFGQVYNMMSGDAPDLDDTGR LKAFYSVIQQLVAENKLLAYHDSGGLFVAVL VEMAFAGRCGLDIDLNLL LAQTFITNHTALSQSLRTEEVKALAEWQETIARTLFNEELGAVIQVRKQDVADIINLFYQQQLHHNVFEIGTLTDE NTLIIRDGQTHLISDNLIKLQQTWQETSHQIQRLRDN PACADSEFALIGDNERSALFADV KFDVNEDIAAPFINS GAKPKIAILREQGVNGQIEMAAAFTRAGFDAYDVHMSDL MAGRIHLADF KMLAACGGFSYGDVLGAGEGWAKSILFH PALRDQFAAFADPDTLT LGVCNGCQMVSNLAEIIPGTAGWPKFKRNLSEQFEARLSMVHVPKSASLILNEMQSS LPVVVSHGEGRADFALHGGNISADLGIALQYIDQONQVTQTYPLNPNGSPQGIAGVTNADGRITIMPHPERVYRA AQMSWKPEGWTELSGWYRLFAGARKALG
193	2000	MNQTA INRADVRTRFIFDDMPVRGLHVRLENVQHI VVKQKNYPAAIRRALGELLAAGVLLSGNLKNEGT LIVQVQG RGR LKMLVAEASDRTVRATARWDETA EADDES LGDLLGEGGVFVLT LQPKDGEPWQGVVPLEGGGIAQMLVNYM KRSEQLDTHIVLSASDEAAGLLVQRLPEEVLDEEAEWHVSTLARTLTA EELAGLDAQHVLYRLFHETPPRVFEPE TFEFSCTCSRGVSDMLMLLGEEVGVVVEQGSIEVDCDFCHSKYVFDETDVNALFGEDVVGVAKGLPRHTVQ
194	2039	MKKSIALTLAALPVAAMADVTLTYGTIKAGVETSRSVFHQNGQVTEVTTATGIVDLGSKIGFKGQEDLGNGLKAIW QVEQKASIAGTDSGWNRSF IGLKGGFGKLVRGLNSVLKDTGDINP WDSKSDYLGVNKIAEPEARLISVRYDSP EFAGLSGSVQYALNDNAGRHNSES YHAGFNKNGGFFVQYGGAYKRHHQVQEGLENI EKYQIHLRVSGYDNDALYAS VAVQQQDAKLT DASNSHNSQTEVAATLAYRFGNVTPRVSYAHGFKGLVDDADIGNEYDQVVVGA EYDFSKRTSALV SAGWLQEGKG ENKFVATAGGVGLRHKF
195	2057	MKTFSAPHEVKREWFVIDAQDKVLGRVAAEVASRLRGKHKPEYTPHVD TGDYIIVINADKLRVTGAKFEDKKYFR



		HSGFPGGIYERTFREMEOEQFPGRALEQAVKGMPLPKGPIGYAMIKKLKVYAGAEHAHAQAQPKVLELK
196	2079	MKVGVFGWRGMVGSVLMQRMKEENDFAHIPEAFFFTTSNVGGAAPDFGQAAKTLDDANNVAELAKMDIIVTCQGGD YTKSVFQALRDSGWNGYWI DAASSLRMKDDAIIVLDPVNRDVLNGLKNGVKNYIGGNCTVSLMLMALGGLFQNDL VEWATSMTYQAASGAGAKNMRELISGMGAVHAQVADALADPAGSILDIRKVSDFLRSEDYPKANFGVPLAGSLIP WIDVDLNGQSKEEWKGGVETNKILGRSDNPTVIDGLCVRVGAMRCHSQAITLKLKDLVPSEIETILAGANDWVK VIPNEKEASIHETPAKVTGTLSPVVGRIKLGMGGEYISAFITVGDQLLWGAAEPLRRVLRIVLGSL
197	2086	MKFIDEAKIEVAAGKGGNGATSFRREKFVPRGGPDGGDGGKGSVWAEADENTNTLVEYRFVKRYQAKNGEKHGS DRYGAGADDIVLKMFPVGTILRDLDTGETVADLTYPHQRVCLAKGGKGLGNIHFKSSVNRAKQSTPGEEGEARSL QLELKVLDVGLLGMNAGKSTLITAVSAARPKIANYPFTTLHPNLGVVRI DENHSFVMADI PGLIEGAEGAGLG HRLFKHLSRTGLLLHVVDLAPFDETVNPAAEALAI INELRKYDEELYGKPRWLVLNKLMDLDEEEAQTRTAAFLEA VGWDYPKPDDRFPQDMETPRLFQISALTHQGTQELVHQINQYLTEKKRIEAEKAEKAAANVEIEEQPKTDTGV FKPE
198	2101	MSQITMRQMI EAGVHFGHQTRFWNPMAQYIFGARNKIHI VNLKTLPMFQDAQEAVRRLVANKGTVLVFGTKRQA RDI IREEATRAGMPFVDYRWLGMLTNYKTVPKQSIKRLEEKTAALENAAESGFSKKEILEMQRDVEKLESLGGIK NMKGLPDAIFVIDTGYQKGTILVEAEKLGIPVIAVVDNTNNSPDGVKYVIPGNDDSAKAILYCRGIADAVLEGKNQA LQETVAAAQEA AAAE
199	2102	MAEITAKMVDLRAATGLGMECKKALVEAEGNFDKAEELRIKSGAKAGKLAGRTAAEGVLAYAINGNVGALVEV NCETDFVAKDAGFVEFANFVAKTAAEKKPASVEELSELVEAERKAI IAKLGENMSVRRFQVIDTANQLVAYIHGAL ATEGVLVEYKGSSEVDARKIGMHIVAAPQCVSAEVAETVEKERHIYTEQAIASGKPADIAAKMVEGRIRKFLAE ITLNGQAFVMNPQDTVAQFSKENGTEVISFVRYKVGDGIEKKAVDYAAAEVAAA KAV
200	2103	MTQQIKYKRVLLKLSGESLMGSDPFGINHDTIVQTVGEIAEVVKMGVQVGVIVVGGGNI FRGVSQAQGSMDRATADY MGMMATVMNALALKDAFETLGIKARVQSALSMQQAETIYARPKAIQYLEEGKVVI FAAGTGNPFTTDTAAALRGA EMNCDVMLKATNVDGVYTADPKKDP SATRYETITFDEALLKNLKVMDATAFALCRERKLNIVVFGIAKEGSLKRV TGEDEGTLVHC
201	2129	MSQNHTILQSLPVGQKVGIAFSGGLDTSALLWMLKLGALPYAYTANLGQPDDEDDYNAIPKKAMEYGAENARLIDC RAQLAHEGIAAIQCGAFHVSTGGIAYFNTTPLGRAVTGTMVLSAMKEDDVNIWGDGSTYKGNDIERYRYGLLTNP ALKIYKPWLDQQFIDELGGRHEMSEFLIANGFNYKMSVEKAYSTDSNMLGATHEAKDLEFLNSGIKIVKPIMGVAF WDENVEVSPEEVSVRFEEGVPVALNGKEYADPVELLEANRIGGRHGLGMSDQIENRI IEAKSRGIYEAPGMALEH IAYERLVTGIHNEDTIEQYRINGRLRLGRLYQGRWFSQALMLRETAQRWVAKAVTGEVTTLELRGNDYSILNTES PNLTYYPERLSMEKVEDAAFTPLDRIGQLTMRNLDTITRVLKGIYSQSGLLSLGEKSVLPQLGNKQ
202	2138	MAEAVINQLNNTLNDLEKRSIEDIRVYMDYQGGKDRLEEVIGLSEDPELWNDPKRAQEI GKERKILEGIVLTLDNIA SGIEDNRMLIEMTVEENDEEGFAAVQEDVAGLEKQMADELFKRMFNQPADPNNC FIDITAGAGGTEAEDWAGMLFR MYSRYAERKGFRIEILEEDDGEIAGINRATIRVEGEYAYGLLRTETGVHRLVRYSPFDSNNKRHTSFASVFVYPEI DDSIETIENPADLRIDTYRASGAGGQHINKTDSAVRI THEPTGIVVQCQNDRSQHANKAAAMEMLKSKLYELEM RNEEKQALEEGKSDVWGSQIRSYVLDSSRIKDLRTGYEVGNTKAVLDGDLGDFIEASLKQGV
203	2154	MSVLIIVEHDNKQLNP TTLHAVTAAAKLGKVDLLVAGNGASAVVEFAKQVAGVKVLVADAAHYAEGLAELAPLV VKLAADYRYVAATATTFGKNLLPRVAALLDVPQISDLTEIVDNTTFVRPIYAGNAFETVQADSEKLVLTFRATVFD AVAAQGGNAEIVNEATPAQNLRSFVNRQLSHSDRPELTQAKVIVSGGRALGSAEFNEVLTPADVLGAAGASR AAVDAEYAPNDAQVGQTGKVVPOLYFAIGISGAIQHVAGMQDSKVI VAINKDADAPIFNVDYGLVGLDFEIVPQ LTEVLKN
204	2155	MKALVAVKRVVDYNVKVRKADGSDVDIGNVKMSMNPFEI AVEEAVRLKEAGKVSEIVAVSLGEKKCEETLRTAL AMGADRAIHVETDTKLES LAVAKLLKAVADKENPQIFFLGKQAI DDDANQVAQMLAALLNAAQGT FASKVQIEGDE VQIVREIDGGEETIALKLPAVISADLRLNEPRFVKLPNIMAAKKKPLEKLT PDDL VADISPRKTVKFAEPKARQA GVKVASVAELVEKLKNEAKVI
205	2159	MSIKVAINGFRIGRLALRQIEKAHDIEVVAVNDLTPAEMLLHLFKYDSTQGRFQGTAEKDDAI VVNGKEIKVFA NPNPEELPWGELGVDVILECTGFFTNTKAEAHIRAGARKVVISAPGGNDVKTVVYGVNQDILDGSETVIS AASCT TNCLAPMAAVLQKEFGVVEGLMTTIIHAYTGDQNTLDAPHRKGDRLRRARAALNIVPNSTGAAKAIGLVIPELNGKL DGSQQRVPVASGSLTELVSILERPVTKEEINAAKMAAASESYGYNEDQIVSSDVVGIEYSGSLFDTQTRVMTVGGK QLVKTVAWYDNEMSYTCQLVRTLEYFAGKI
206	1126 1164	MKTVSTAVVLAAA VSLTGCATESSRSLEVEKVASINTQYHGVRTPI SVGTFDNRSSFQKGI FSDGEDRLGSQAKT ILVTHLQQTNRFNVLNRTNLNALKQESGISGKAHNKGADYVVTGDDVTEFGRRDVGDLHQLFGILGRGKSQIAYAKV ALNIVNVNTSEIVYSAQGAGEYALS NREIIGFGGTSGYDATLNGKVLDAIREAVNSLVQAVDNGAWQPNR
207	1799	MSEYLFSESSEGHDPKQVADQVSDAILDAILAQDPKARVAAETLVNTGLCVLAGEITTTAQVDYIKVARETIKRI GYNSSELGFDANGCAVGYYDQOSPDI AQGVNEGEGIDLNQAGDQGLMFGYACDETPTLMPFAIYYSHRLMQRS ELRKDGRLPWL RPDAAQLTVVYDSETGKVKRIDTVVLSTQHDPSIAYEELKNAVIEHIIKPVLPSELLTDETKYL INPTGRFVIGGPQDCGLTGRKIIVDTYGGAAHPHGGGAFSGKDP SKVDRSAAYACRYVAKNIVAAGLATQCQIQVS YAI GVAEPTSISIDTFGTGKISEEKLIALVREHFDLRPKGIVQMLDLLRPIYSKSAAYGHFGREEPEFTWERTDKA

		AALRAAAGL
208	0110	MALLNILQYPDERLHTVAKPVEQVDERIRKLIADMFETMYESRGIGLAATQVDVHERVVMDLTEDRSEPRVFINP VIVEKDGETTYEEGCLSVPGIYDVTTRAERVKVEALNEKGEKFTLEADGLLAICVQHELDHLMGIVFVERLSQLKQ GRIKTKLKKRQKHTI
209	0957	MSQYDVVVIGAGPGGYVAAIRAAQLGFKTACVDAGVKNAGNAPALGGTCLNVGCIPSKALLOSSEHFHAAQHEFAE HGITVGDVVKFDDAKMIERKDAIVTKLTGGVKFLFQKNKVTSLFGTASFAGKNGDAYQIEVDNKGEKTVIEAKHVIV ATGSVPRPLPQVAIDNVNVLNEGALNLTEVPAKLGIVIGSGVIGLEMGSVWNRVGAETVILEAAPTFLAAADQQA KEAFKYFTKEQGLSIELGVKIGDIKSEKGVSVAYETAAGEAKTEVFDKLI VAIGRI PNTKGLNAEAVGLEKDERG FIKVDGECRTNLPNVWAI G DVVRGPM LAHKASDEGVAVAERIAQOKPHIDFNVPFVIYTDPEIAWVGKTEEQLKA EGVEYKKGTSFGGANGRALAMGAKGTVKVLADAKTDRI LGVHMIGPVVSELVTEGVTALEFFASSEDARI IHAH PTLSEVVHEAALADKRALHG
210	1011	MMIEKSISIVDGKEYSVFAVSHEFRYTFDEPILVADLISSLKAYETLTSSYLPAILNQLFDVKIQKIKVAVSEIER GSFLEKLI FNLFKDEDAYNEFLKIRKFLGTENQDGSINMSKIIMFAMTLLGVGAGYLLFKNPPQEQKQAITNNI VTVINADSSVALDGEHLVSUVKEVTGSSKQKTAENVAKVYAPASKNNGSITLGTDDVRIEPVAQQT VATLPKQVDL RDTPLTEDYTDIDVQIRATDRDKNSGWYVIDQIVPSRVLELPEDIDLNLANNATIRANVTVEFDLKQNGSRKP KKIILTSLSTD
211	1055	MFSKSVTLAQYDPLAAIAQEDQROQDHVELIASENYVSCAVMDAQGSQLTNKYAEYGPGRYGGCEYVDIVEQ LAIDRVKELFGAAYANVQPHSGSQANQAVYASVLKPGDTILGMSLAHGGH LTHGASVNI SGKLYNAVTYGLDENEV LDYAEVERLALEHKPKMIVAGASAYALQIDWAKFREIADKVGAYLFVDMAHYAGLVAGGEYPNPVPFCDFVTITTT KTLRGPRGGVILCRDNTHEKALNSSIFPSLQGGPLMHVIAAKAVAFKEALQPEFKQYAKQVKINAAAMAEELVKRG LRIVSGRTESHVFLVDLQPMKITGKAAEALGKAHITVNKNAI PNDPEKPFVTSIGRIGSAAMTTRGFNEADARVL ANLVADVLSNPEDEANLAKVRKQVTALCNKYPVYGA
212	1437	MSARENILAKLKKADALPMEEPVFDYDYREMGVSWGSEVERLKHWAAMRAVKTEIYVWTKSNWMQVFREAEGKG LKNILLPLATEHGQIARAALADSNIPIAFEREIDTWKTEFFTNIDAGFSGAQCGIARTGTLMLFSSPEEPRTLSL VPPVHFCFLDTSKMYNEFHNAVEGEKLVENGMPNTNVFLISGPSKTADIQLTLAYGAHGPRDLVILAILPDHISPAD LEENA
213	1460	MSLNKVLIGRLGRDPEVRYMPNGEAVCNFSVATSETWNRNGQORVERTEWHNITMYRKLAEIAGQYLKKGGLVYL EGRIQSRKYQKGDIERTAYDIVANEMKMLGGRNENSGGAPYEYEGYQSQEA YQRPAAQSRQPASDAPSHPOEAPA APRRQVPVAAAPVEDIDDDIPF
214	1540	MNKKHGFPLTLTALAIAATAFPAYAAQAGGATPDAAQTOSLKEITVRAAKVGRRSKEATGLGKIVKTSETLNKEQVL GIRDLTRYDPGVAVVEQNGASGGYSIRGVDKNRAVSVGDGVAQIQAFVTVQGSLSGYGGRGGSGAINEI EYENIST VEIDKGAGSSDHGSGALGGAFAFRTKEAADLISDGKSWGIIQAKTAYGSKNRQFMKSLGAGFSKDGWEGLLIRTERQ GRETRPHGDIADGVEYIGIDRLDAFRQTYDIKRKTREPFFSVGEGERESKPVAKLAGYKYLNNQLNRWVKERIEQNQ PLSAEEEAQVREAAQARHENLSAQAYTGGGRILPDPMDYRSGSWLAKLGYRFGGRHYVGGVFEDTKQRYDIRDMTEK QYYGTDEAEKFRDKSGVYDGD DFRDGLYFVPNIEEWKGDKNLVRGIGLKYSRTKFI DEHRRRRRMLLYRYENEAY SDNWADKAVLSFDKQGVATDNNTLKLNCAYVPAVDKSCRASADKPYSYDSSDRFHYREQHNVLNASFEKSLKNKW KHHLLTGFGYDASKAISRPEQLSHNAARISESTGF DENNQDKYLLGKPEVVEGSGCYIETLSRKCVPKINGSN IHISLNDRFSIGKYFDFSLGGYDRKNFTTSEELVRSRGYVDRSWNSGILFKPNRHFSVSYRASSGFRTPSFQELF GIDIYHDYPKGWQRPALKSEKAANREIGLQWKDGFGLFESSFRNRYTDMIAVADHKTLPNQAGQLTEIDIRDY NAQNMSLQGVNILGKIDWNGVYKLPGLYTTLAYNRIKPKSVSNRPGLSLRSYALDAVQPSRYVLGFGYDQPEGK WCANIMLTYSKGKNPDELAYLAGDQKRYSTKRASSWSTADV SAYLNLKKRLTLRAAIYNIGNYRYVTWESLRQTA ESTANRHGGDSNYGRYAAPGRNFSLALEMKF
215	1554	MTKFIFVTGGVSSSLGKGIAAASIAAILESRLNVTMLKLDPIYINVDPGTMSPFQHGVEFVTDGAE TDLDLGHYE RFIDSTMTRRNSFSTGQYENVIAKERRG DYLG GTVQVIPHITDEIKRRIHEGAAGYDV AIVEIGGTGVDIESIPF LEAIRQMRSQ LGRNNTLFAHLSYVPYIAAAGEIKTKPTQHTVKEMLSIGLQPDILICRMDRTPADERRKIALFCN VEERAI VGSYDVDSIYECPEMLHDQIDNIITEQLQ LNVQQADLTAWKKIVHAIQNPKHTVKIAMVGKYVDLTESY KSLIEALKHAGIHTETDVQITFVDSENIEKNKGDVSM LKMDAILVPGGFGSRGVEGKIAAVRYAREN NVPYLGIC LGMQIALIEYARDVAGLKGANSTEFDLKCAAPVVALIDEWQTADG SVETRESTD LGGTMR LGAQVEVELKAGSLAA KIYGS GHIRERHRHRYEVNNNYVPTLEQAGLVIGGVSAGRERLVETIELPNHPWFACQFHPEFTSNPRKGHPFLT AFVKAALNNKKA
216	1576	MRHILSVLIENESGAMSRVVLFSARDYNIDSLAVAPTEDKTL SRMTIVTHGDEQVIEQITKQLNKLIEVIKVVDL NESRFVERELMLVKVRAAGKDRDEFRLRTEIYRGSIIDVTD RSYTIEITGSTDKLDSFLETVGRAQILETVRTGAA GIGRGERILKI
217	1808	MRLFSLKNPKKTDAKLPKKSSGLNNRAAIGIDIDQHSIKMVQLSGRSLNQIQLEKYVIAKLPKNIIQGNKVQNYD QLVTTYLQQAYAKLGTSCKNIIASVPQNLATIEQLTYTDKDAELDLQGFVESSISEVSSISLEEANYDYQLVSQSA GEAVLAVASRKDEIEPLIDAFNAAGMKLSALDVIDFGQYNAYALWINHFAPELAAEKVAIFGVYAAQTYALVIQDG KILYKQETSVSEEQLNQLIQRTYQVTEKEAEIINSPOKPSDYQESVANYFNQOITQEIQRVLQFYTTQTADDMT DIKHILLTGEAARQEGIAQTVASQTNADVQC VHPARYFADNLKTDKQQFELDAPTLTRAFGLAVRGL